

SERVICE MANUAL

**SANYO**

STEREO MUSIC SYSTEM

DCW4800UM

(EUROPE)



SPECIFICATIONS

Cassette recorder and tuner section

Recording system: AC bias, 1/4 track stereo
Erasing: AC erase
Tape Speed: 1-7/8 ips. (4.75 cm/s)
Rewind & Fast forward time: 1.30" (C-60)
Wow & Flutter: 0.2% WRMS
Signal to noise ratio: 62 dB (Dolby switch ON)
55 dB (Dolby switch OFF)
Speed accuracy: $\pm 2\%$
Cross talk: 60 dB
Frequency Range: FM: 87.5 - 108 MHz S/N 30 dB
sensitivity 23 dB
SW: 5.9 - 18 MHz S/N 20 dB
sensitivity 31 dB
MW: 510 - 1,605 KHz S/N 20 dB
sensitivity 78 dB
LW: 150 - 350 kHz S/N 20 dB
sensitivity 87 dB
MPX separation: 35 dB (1 KHz)
3 dB limiting: 30 dB (input 60 dB)
Frequency response: NORMAL: 40 - 13,000 Hz
CrO₂: 40 - 16,000 Hz

Turntable section

Turntable speed: 33-1/3 and 45 rpm.
Cartridge: Moving magnet cartridge (MM107A) with diamond stylus (N107A)
Wow & Flutter: 0.1% WRMS
Tracking force: 2.5g
Turntable: 282 mm dia.
Frequency response: 20-20,000Hz

General

Power output: 17W x 2
Terminal impedance: MIC: 10k ohm (0.3mV)
AUX/(REC/PLAY) input: 470k ohm (150mV)
output: 270k ohm (220mV)
SPEAKERS: 8 ohm
HEADPHONES: 8 ohm (50mW)
AC: 110/125/220V
Power source: AC
Dimensions: Approx. 27-1/16" (W) x 14-1/8" (D) x 6-15/16" (H) (686 x 358 x 175 mm)
Weight: Approx. 30 lbs. (13.5kg)

Note: Specifications subject to change without notice.

WM-2276

DISASSEMBLY

A. Removing turntable unit (cf. Fig. 1)

1. First, dismount the turntable platter (T1) and the sheet (T91) on it. Next, remove the two special screws (19) fastening the turntable plate assembly (T10) to the main unit of the G2811KL. (cf. TURNTABLE EXPLODED VIEW)
- * Pull up and turn counterclockwise the special screws to remove.
2. Detach the lead socket (107) from the plug (T84) of the turntable power cord. Pull two RCA plug pins (108) out of the socket assembly (T88). Now, the turntable unit can be separated from the G-2811KL unit.

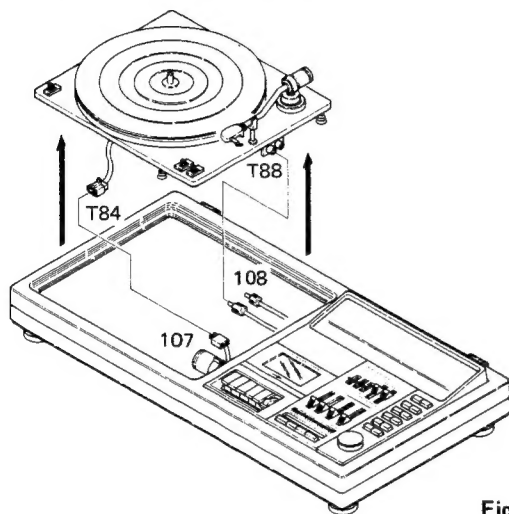


Fig. 1

B. Removing deck panel (cf. Fig. 2)

1. Detach from their shafts six slide knobs (16) and one tuning knob (17) for operation control.
2. Remove the 10 screws (Y13) and the screw marked (Y14), and the deck panel (1) will come off.

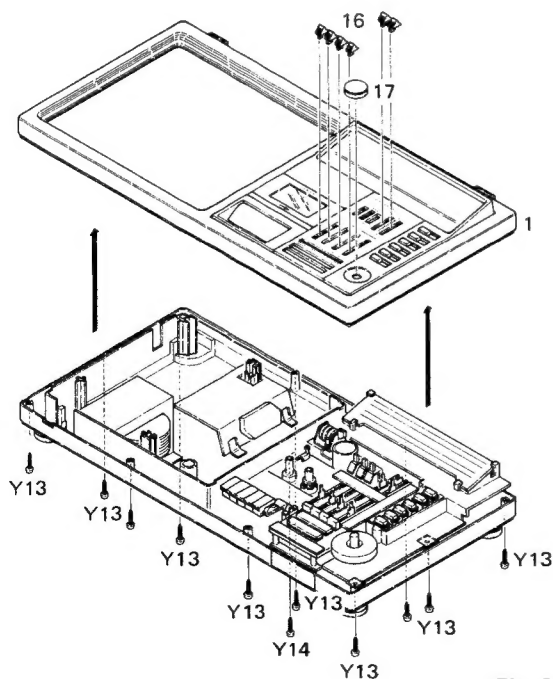


Fig. 2

C. Removing printed circuit boards (cf. Fig. 3 to 8)

1. Remove the three screws (2 marked Y11 and 1 marked Y12) and detach the 10-pin socket (114) from the connector PCB (126). Then, you can remove the FM "touch" tuning PCB (133). (cf. Fig. 3)

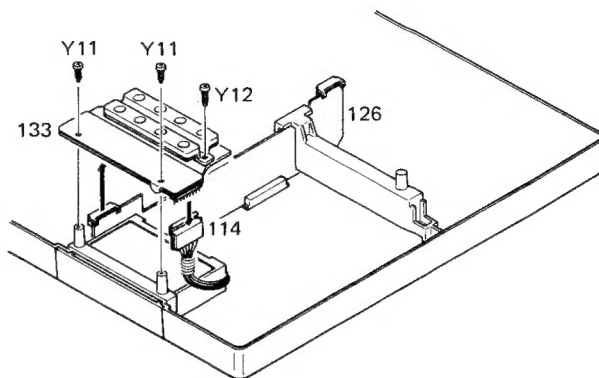


Fig. 3

2. Dismount the dial scale (37) from the bracket mounting (48) and remove the six screws (Y4 = 1, Y5 = 2, Y12 = 3) securing the latter. This done, the meter PCB (128) can be pulled off the socket on the connector PCB (126) together with the bracket mounting (48). (cf. Fig. 4)

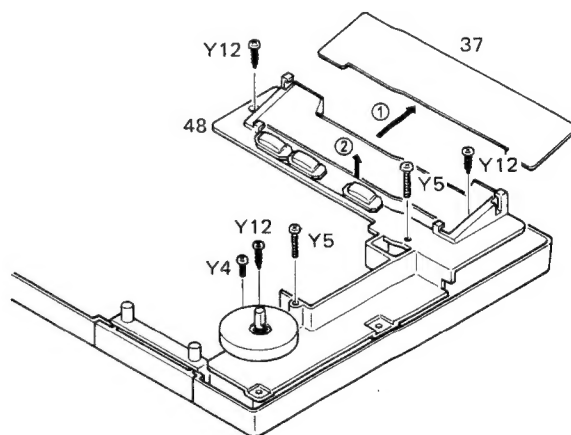


Fig. 4

DISASSEMBLY

3. Remove the two screws (one each marked Y11 and Y31) and disconnect the socket from the connector PCB (126). Then, the volume PCB (121) will come off.

Next, remove the band select PCB (132) by unplugging it from the tuner PCB (131).

Lastly, remove the function PCBs (124 & 125) by unplugging it from the connector PCB (126). (cf. Fig. 5)

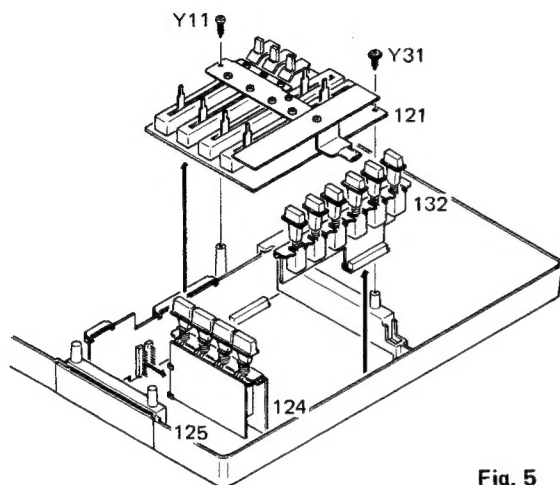


Fig. 5

4. Remove the two pairs of screws (Y12) and washers (Y24) and unplug the equalizer PCB (120) from the socket of the connector PCB (126). (cf. Fig. 6)
5. Remove the three screws (Y31) and a pair of screw (Y12) and washer (Y24). Then, unplug the amplifier PCB (129) from the socket of the connector PCB (126). (cf. Fig. 6)
6. Remove the three pairs of screws (Y12) and washers (Y24), and two pairs of screws (Y13) and washers (Y24). Then, detach the tuner PCB (131) by unplugging it from the socket on the connector PCB (126). (cf. Fig. 6)

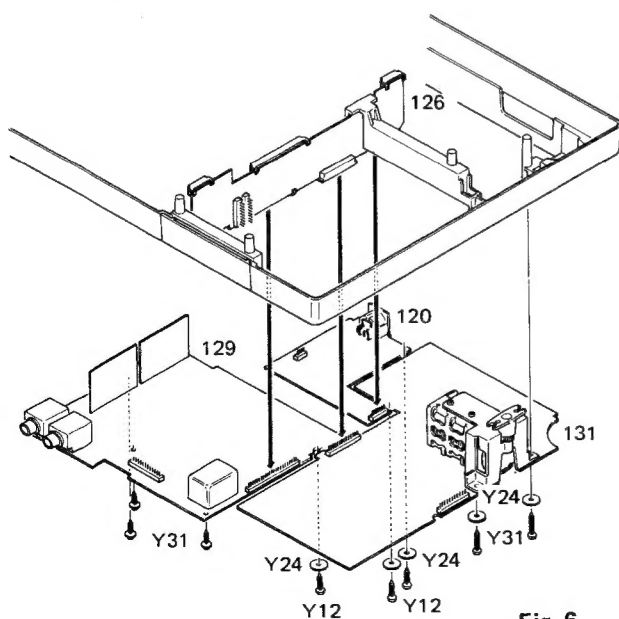


Fig. 6

7. The connector PCB (126) can be detached only after all the above-mentioned printed circuit boards have been removed. Turn the connector PCB in the direction indicated by the arrows ① and then pull it out in the direction indicated by the arrow ②. (cf. Fig. 7)

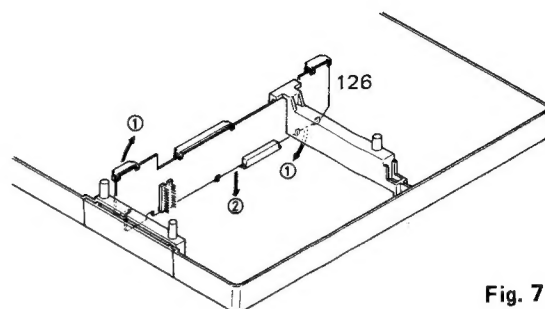


Fig. 7

8. Remove the six screws (Y30 = 3, Y31 = 1 & Y32 = 2), and the power amplifier PCB (122) will come off.
9. Take out the power amplifier connector PCB (123) after removing the screw (Y30). (cf. Fig. 8)
10. Take out the power supply PCB (127) after removing the two screws (Y31). (Fig. 8)

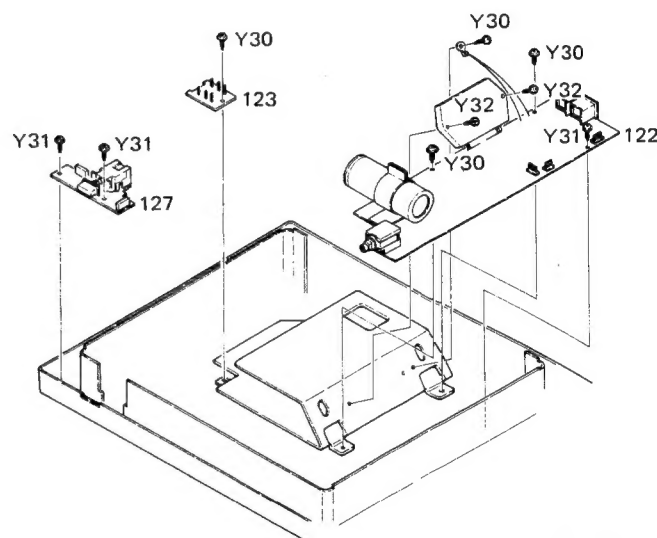


Fig. 8

DIAL CORD STRINGING

1. Cut dial rope to approximately 1,600 mm in length. Tie its ends to form a ring. The rope length should become 1,400 mm. (Fig. 9)

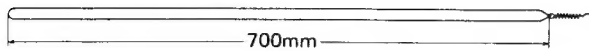


Fig. 9

2. Bend the teeth of the bracket mounting (48) to the outside and open the pilot lamp PCB. (cf. Fig. 10)

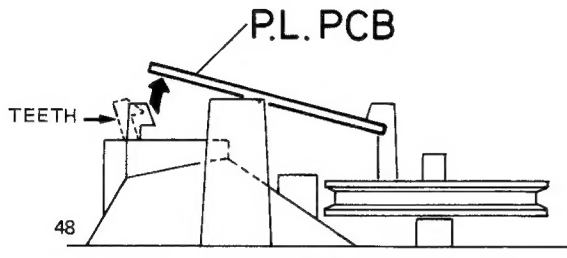


Fig. 10

3. Hook the spring coil (60) to the drum (68) and thread the dial rope through the gap between the bracket mounting and pilot lamp PCB. (cf. Fig. 11). Run the dial rope around the pulleys from ① to ⑦ as in Fig. 12. Wind the loose end of the dial rope and put it around the pulley ⑨ as in Fig. 12.

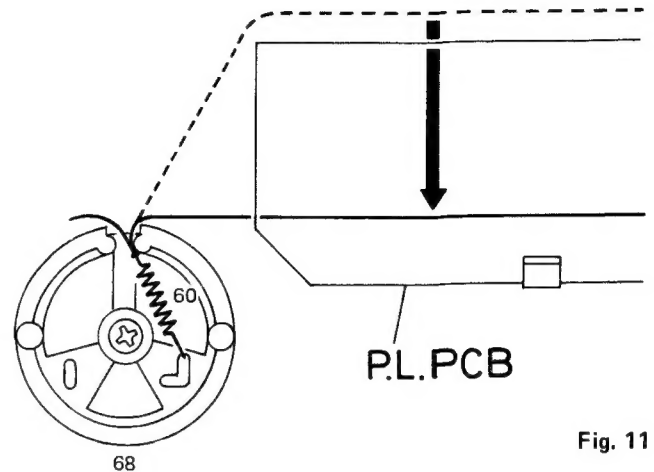


Fig. 11

- * The dial rope should be wound three times around the tuning shaft and drum.

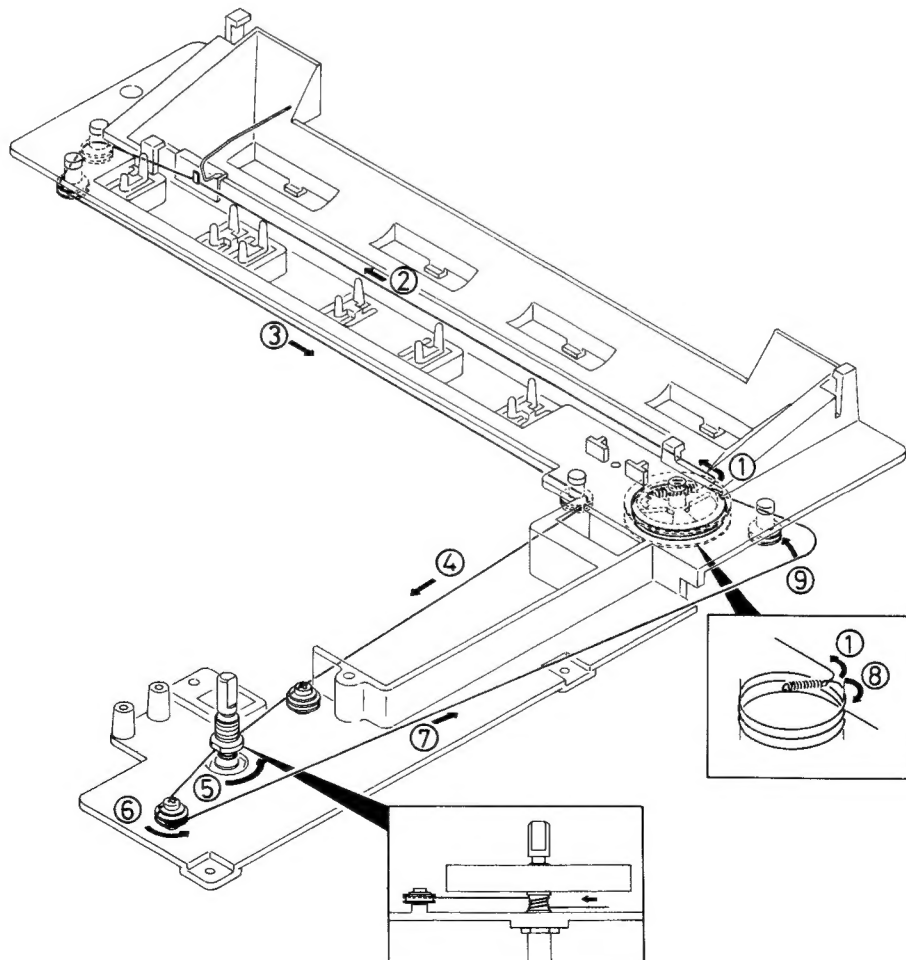


Fig. 12

DIAL CORD STRINGING

4. Turn the variable capacitor as far as it moves in the arrow-marked direction (MAX. position). Engage the protrusion on the dial drum (68) with the mating plate of the variable capacitor as in Fig. 13 (note the position of the cut in the drum), paying attention that the mating plate is parallel to the capacitor gears (22).
5. Re-attach the pilot lamp PCB in its position. Then, attach the pointer, making it meet the starting point on the dial scale.

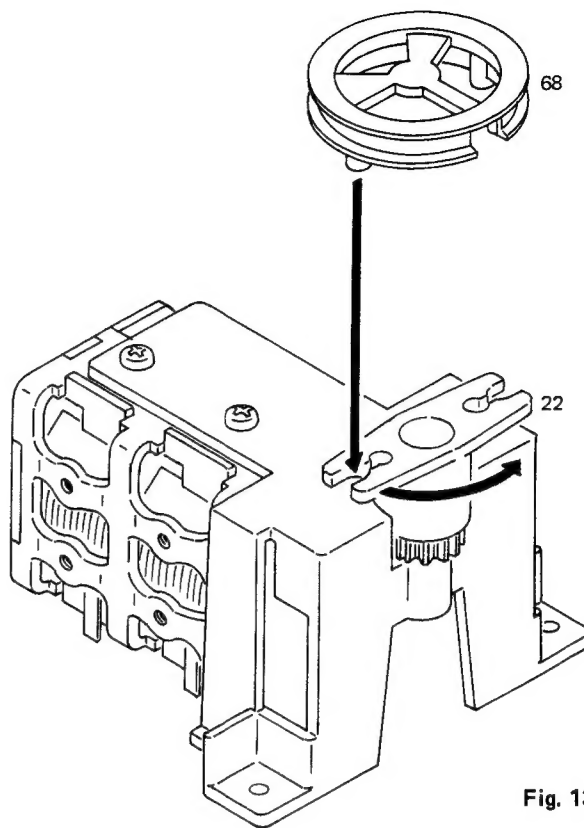


Fig. 13

REPLACING MOTOR PULLEY

1. Remove the screw (headless screw $3\phi \times 2$ mm) fastening the pulley (T13) to the motor (T14). (cf. Fig. 14-a)
 2. Adjust the speed select arm (T7) so that it corresponds to the pulley (T13) in height as shown in Fig. 14-b. To make this adjustment, loosen the pan head screw (3 x 6) (T5) on the speed select base and move the eccentric pin (T4). (cf. Fig. 14)
- * This adjustment should be made with the speed select bar (T12) set to 33 rpm.

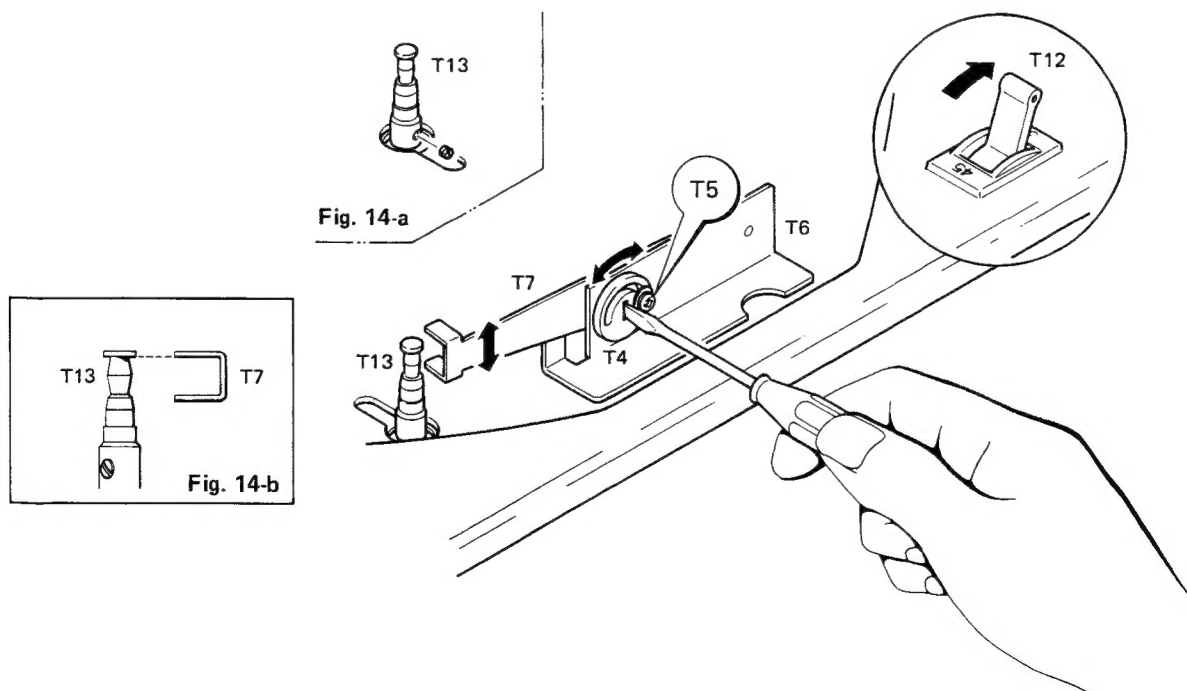


Fig. 14

ADJUSTMENT

CONDITIONS FOR MEASUREMENT

1. Check the source voltage.
2. The input of recording signals is at the AUX (REC/PLAY) terminals Nos. 3 and 5.
3. The point of measurement is the speaker, using mainly a dummy load of 8 ohms. The speakers for both channels should be loaded simultaneously.
4. Unless otherwise specified, each of the control volumes — BALANCE, TREBLE and BASS — should be set to the center position.
5. The BEAT CANCEL switch should be set to "1".
6. The FUNCTION switch should be set to AUX during recording and to TAPE during playback.
7. The LOUDNESS switch should be set to OFF.
8. The heads should be cleaned in advance.
9. When CrO₂ tape is in use, the REC/PLAY frequency response should be: 1kHz, 10kHz = 0 ± 3 dB.
The divergence of the output, when adjusted, should be within ± 1 dB.

HEAD AZIMUTH

1. Set the switches to the following positions:
FUNCTION switch → TAPE
TAPE switch → NORMAL
DOLBY switch → OFF
MAIN VR → CENTER POSITION
2. Mount VTT-658 (10kHz -15dB) test tape and set the unit in the PLAY mode. Adjust the head azimuth screw until the VTVM reading becomes maximum. (Fig. 15a, b)
3. Do the above for both the left and right channels.

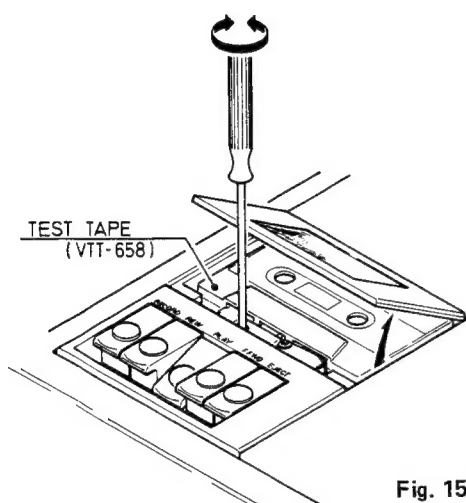


Fig. 15a

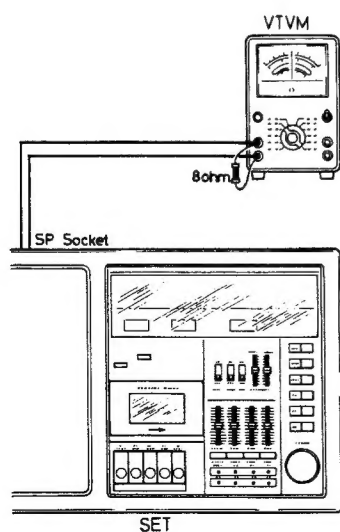


Fig. 15b

METER (RECORDING)

1. Set the switches to the following positions:
FUNCTION switch → AUX
TAPE switch → NORMAL
DOLBY switch → OFF
2. Mount normal tape onto the unit.
3. Apply 1 kHz -10dB (100mV) signals to the unit at the AUX terminal from the AF oscillator via the attenuator. Set the unit in the recording mode. (Fig. 16)
4. Set the recording volume to 580mV, at TP701 and TP801.
5. Set the MAIN VOLUME to 500mW (speaker output of 2V). (Fig. 17)
6. Obtain a meter reading of $+2\text{VU} \pm 0.5\text{dB}$, adjusting SVR702 and SVR802. (Fig. 18)

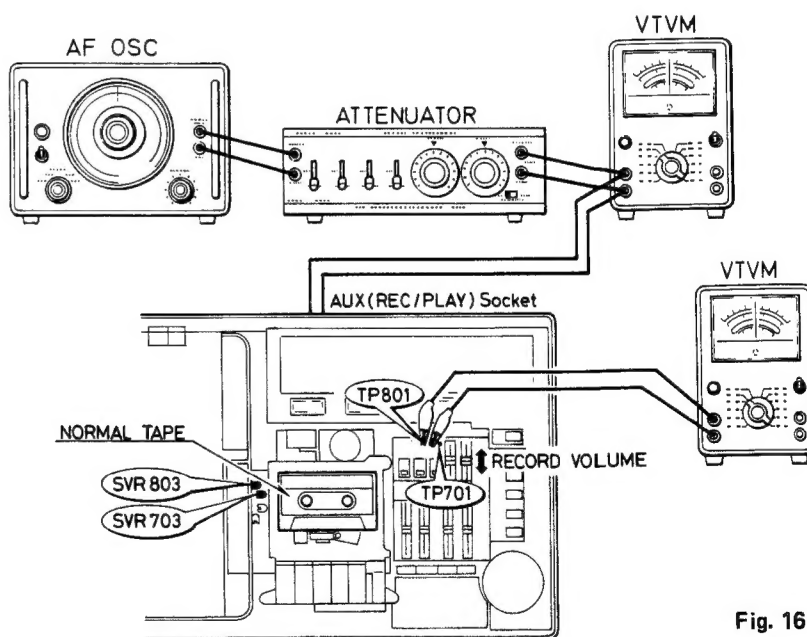


Fig. 16

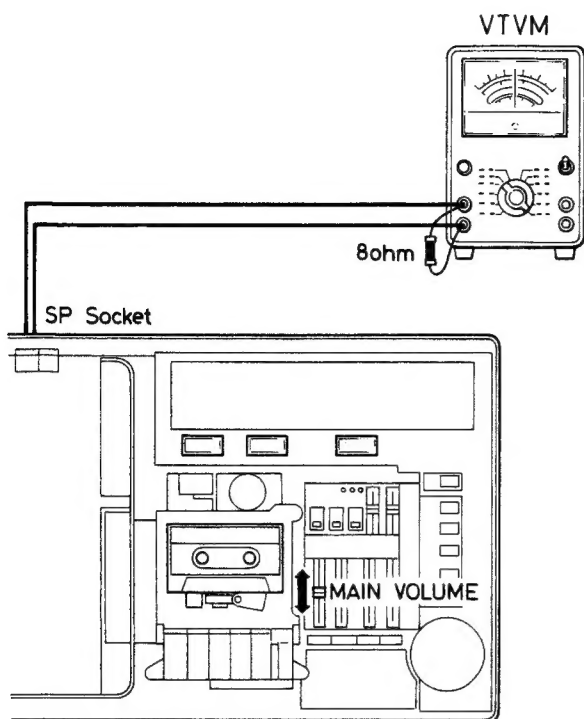


Fig. 17

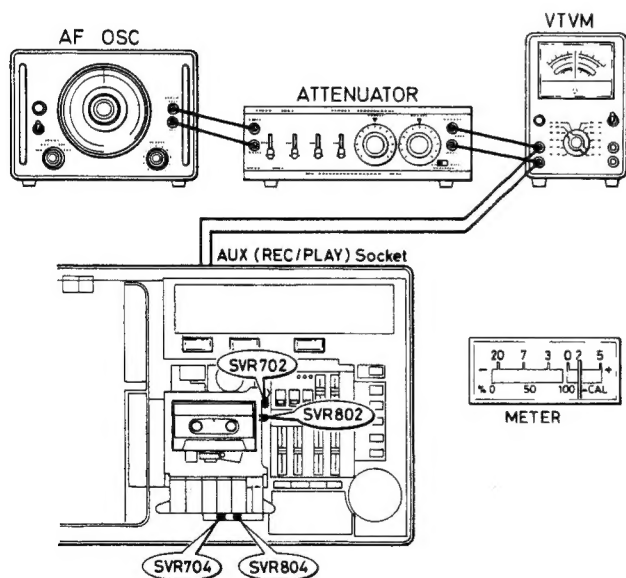


Fig. 18

METER (PLAYING)

- Set the switches to the following positions:
 FUNCTION switch → TAPE
 TAPE switch → NORMAL
 DOLBY switch → OFF
 MAIN & RECORD VRs → Meter readings (recording):
 4 & 5 calibrations.
- Mount MTT-150 (DOLBY) tape onto the unit, and set it in playback mode.
- Adjust SVR701 and SVR801 to obtain a meter reading of $+2\text{VU} \pm 0.5\text{ dB}$ for each channel. (Fig. 19)

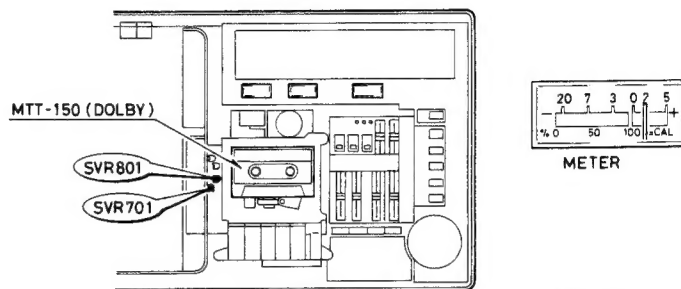
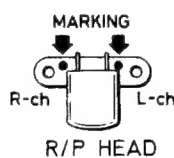


Fig. 19

BIAS

- Set the switches to the following positions:
 TAPE switch → NORMAL
 DOLBY switch → OFF
 MAIN & RECORD VRs → Meter readings (recording):
 4 & 5 calibrations.
- Mount normal (or SANYO) tape onto the unit. Set the unit in the recording mode.
- Measure the voltage on the VTVM, connecting it to both ends of R702 (10 ohms) for the R/P head. Do the same with R802.
- Obtain the voltages listed below for the corresponding marks, adjusting SVR704 and SVR804. (Fig. 20)



Marking	Bias current
Violet	400 μA (4mV)
Green	450 μA (4.5mV)
Black	500 μA (5mV)
Red	550 μA (5.5mV)
Non mark	600 μA (6mV)
Blue	650 μA (6.5mV)
Brown	700 μA (7mV)

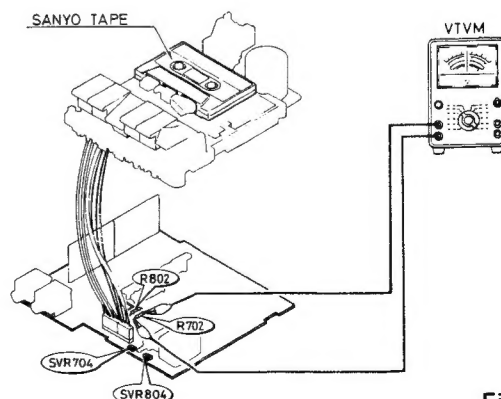


Fig. 20

ADJUSTMENT

RECORD/PLAYBACK FREQUENCY RESPONSE

- Set the switches to the following positions:
 FUNCTION switch → AUX ⇌ TAPE
 TAPE switch → NORMAL
 DOLBY switch → OFF
 MAIN & RECORD VRs → Meter readings (recording):
 4 & 5 calibrations
- Apply inputs of 100Hz, 1kHz and 10kHz -30 dB to the unit at AUX. Set the unit in the recording mode. (Fig. 21)
- Play tape and make necessary adjustment to obtain the following:
 100Hz output = 0 dB
 1kHz output = 0 ± 2 dB
 10kHz output = $+1 \pm 2$ dB
- Readjust SVR704 and SVR804 if the VTVM readings do not conform to the above readings.

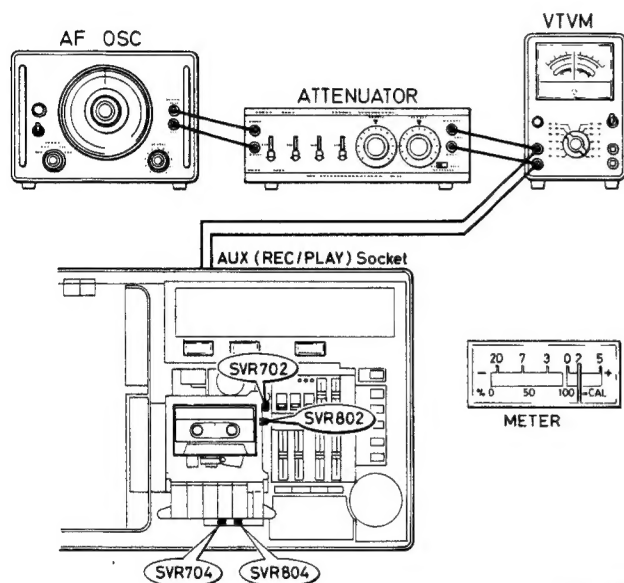


Fig. 21

OUTPUTS

- Set the switches to the following positions:
 FUNCTION switch → AUX ⇌ TAPE
 TAPE switch → NORMAL
 DOLBY switch → OFF
 MAIN & RECORD VRs → Meter readings (recording):
 4 & 5 calibrations
- Mount normal tape onto the unit and set the unit in the recording mode.
- Apply 1kHz -10 dB (100mV) signals to AUX. (Fig. 22)
- Playback the above 1kHz signals.
- Make the recording output correspond to the playback output by adjusting SVR703 and SVR803.

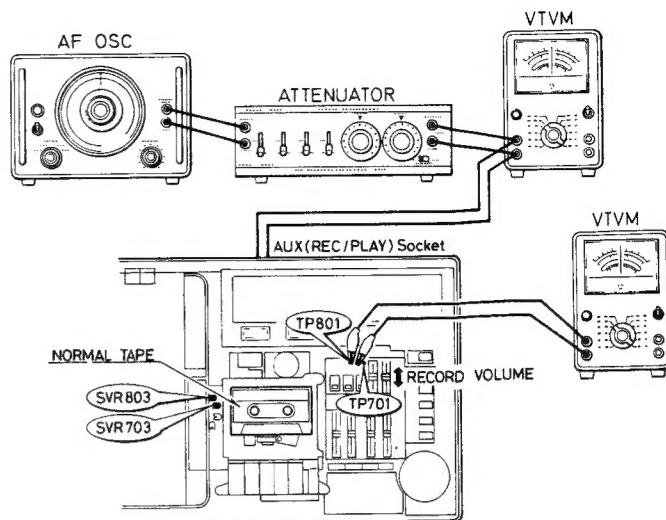


Fig. 22

DOLBY PCB 19kHz TRAP

- Apply 19kHz ± 100 Hz signals to the unit at the AUX terminal from the AF oscillator via the attenuator.
 - Obtain a VTVM reading of 30mV, adjusting the attenuator.
 - Obtain a minimum output from the TP701 and TP801 by adjusting L502 and L552. (Fig. 23)
- * Provided that the output level is 0 dB for an input of 1kHz, there should be an output of less than -30 dB at 19kHz.

NOTE: The frequency generated by the AF oscillator will fluctuate slightly with a rise in temperature. Keep watching the digital counter and adjust, if necessary.

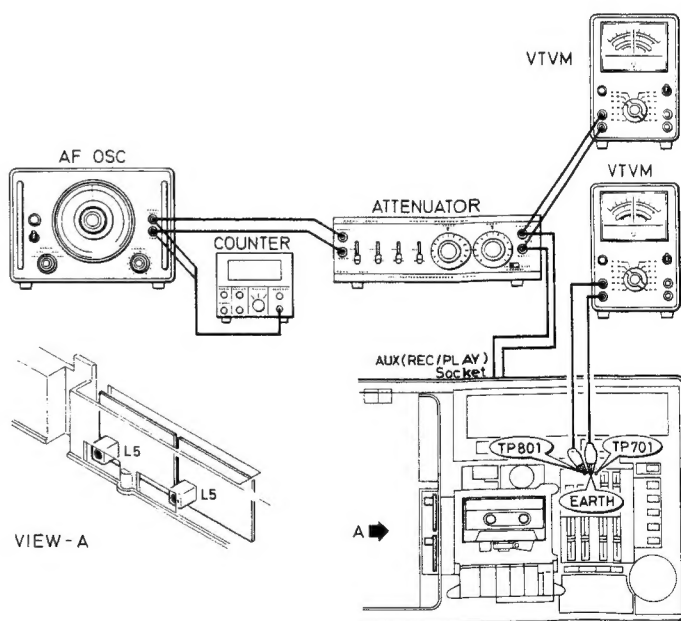


Fig. 23

TUNER ADJUSTMENT

1. Check the source voltage.
2. Set the BAND selector switch to the band for its alignment.
3. Disconnect from the unit the FM telescopic antenna.
4. The standard test signal is amplitude-modulated by 30% with a 400Hz audio signal.
5. The standard test signal is frequency-modulated by a deviation of 22.5kHz with a 1kHz audio signal.

Test equipment

1. Signal generator for MW, LW and SW.
2. Loop antenna for MW and LW.
3. DIN dummy antenna for SW
4. VTVM
5. Scope for FM
6. Signal generator for FM
7. Dummy antenna for FM

Voltage adjustment

1. Set the BAND selector switch to FM.
2. Connect a VTVM to TP-201 (+) and TP-202 (–).
3. Adjust R217 (50kB) until 0.5V is obtained.

MW ALIGNMENT

Alignment	Equipment	Connection	Step	Gen. Freq.	Dial Setting	Adjustment	For
IF	AM Signal Generator VTVM	See page 11		450kHz	Minimum Frequency	T151, T202	Maximum Output
TUNING RANGE	AM Signal Generator VTVM		1	505kHz	Minimum Frequency	L155	Maximum Output
			2	1650kHz	Maximum Frequency	CT154	Maximum Output
			3	Repeat steps 1 and 2.			
TRACKING	Signal Generator VTVM		1	600kHz	Tune to Signal	L153	Maximum Output
			2	1400kHz	Tune to Signal	CT153	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			

- 1) Points for testing IF output: H (hot side) TR205, E (earth side) TP204
- 2) For testing, use an IRE loop antenna.

LW ALIGNMENT

Alignment	Equipment	Connection	Step	Gen. Freq.	Dial Setting	Adjustment	For
TUNING RANGE	AM Signal Generator VTVM	See page 11	1	145kHz	Minimum Frequency	L156	Maximum Output
			2	360kHz	Maximum Frequency	CT156	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			
TRACKING	AM Signal Generator VTVM		1	160kHz	Tune to Signal	L153	Maximum Output
			2	340kHz	Tune to Signal	CT155	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			

- 1) For testing, use an IRE loop antenna.

SW ALIGNMENT

Alignment	Equipment	Connection	Step	Gen. Freq.	Dial Setting	Adjustment	For
TUNING RANGE	AM Signal Generator VTVM	See page 11	1	5.8MHz	Minimum Frequency	L154	Maximum Output
			2	18.5MHz	Maximum Frequency	CT152	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			
TRACKING	AM Signal Generator VTVM		1	7MHz	Tune to Signal	L152	Maximum Output
			2	18MHz	Tune to Signal	CT151	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			

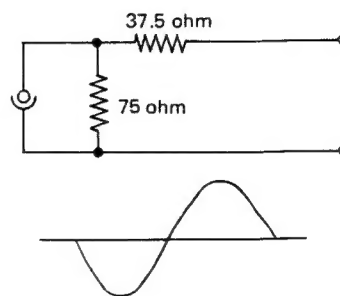
- 1) For testing, use a DIN (IEC) dummy antenna.

TUNER ADJUSTMENT

FM ALIGNMENT

Alignment	Equipment	Connection	Step	Gen. Freq.	Dial Setting	Adjustment	For
IF	IF Sweep Generator Oscilloscope	See page 11		10.7MHz	Minimum Frequency	T101,T201,T203	Symmetrical curve for Maximum
						T204	Symmetrical S-curve on Scope
TUNING RANGE	FM Signal Generator VTVM		1	Manual 87MHz	Minimum	R126	Maximum Output
				Pre-set 88MHz	Frequency	R125	
			2	Manual 105MHz	Maximum Frequency	L103 Stretch or Squeeze	Maximum Output
			3	Repeat steps 1 and 2.			
TRACKING	FM Signal Generator VTVM		1	90MHz	Minimum Frequency	L101, L102 Stretch or Squeeze	Maximum Output
			2	103MHz	Maximum Frequency	CT101, CT102	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			

- For testing, use a dummy antenna (75 ohm unbalanced).
- Points for testing IF input
 H (hot side) TP102
 E (earth side) TP101
 Points for testing output
 H (hot side) TP203
 E (earth side) TP204
- Adjust the detector transformer to obtain an S curve as illustrated at right.
 Points for testing input
 H (hot side) TP102
 E (earth side) TP101
 Points for testing output
 H (hot side) TP206
 E (earth side) TP204
- Adjust the signal range covered, starting with the high range according to the instructions in the manual.
 Pre-set tuning buttons to 88MHz to cover the low range.
 No adjustment is required of the high range.
 * There may be deviations in the low range but its center channel should correspond to 88MHz.



MPX ADJUSTMENT

1. PILOT FREQUENCY

Connect a frequency counter to the test points ((+) to TP301 and (–) to TP204). Set the BAND switch to FM and adjust R302 (5kB) to obtain an accurate pilot frequency of 19kHz, while receiving no signals. (Fig. 24)

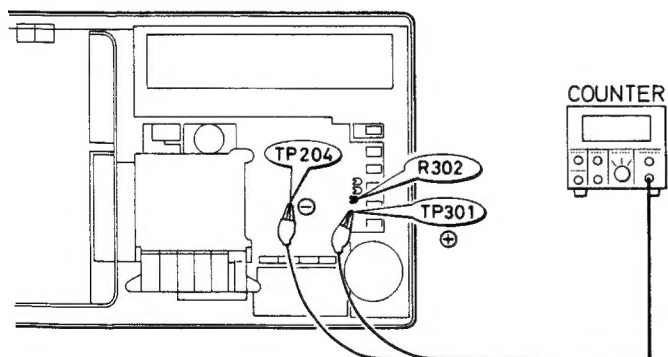


Fig. 24

2. SEPARATION

Apply from the stereo signal generator to the SG a 96MHz (modulation 30%, pilot frequency 10%) 60 dB signal. Adjust R306 (2kB) to achieve maximum separation for L & R channels at the stereo signal generator. (Fig. 25) Signals to the right channel should be minimum when adjusting the left channel and those to the left channel should be minimum when adjusting the right channel.

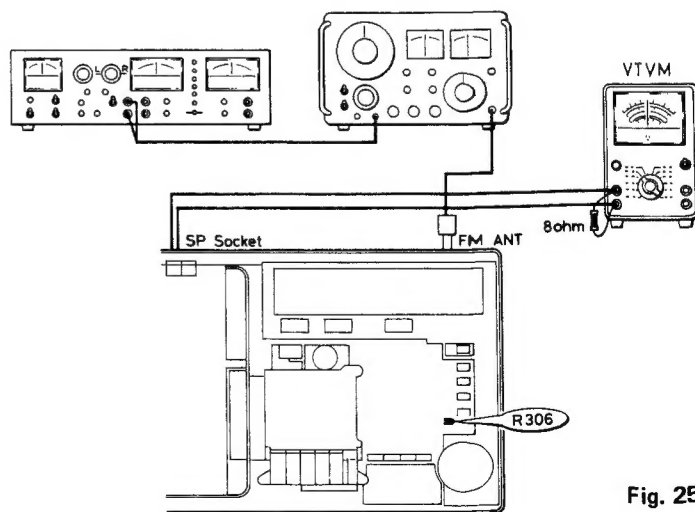


Fig. 25

METER ADJUSTMENT (TUNING)

Make the following adjustment with the BAND switch set to MW.

1. Zero point

Adjust R206 (1kB) so that the SG output is zero and the needle is about to start swining. (Fig. 26)

2. Maximum point

Adjust R204 (2kB) so that the needle stands at the maximum 10 with the SG output at 1kHz 126 dB. (Fig. 26)

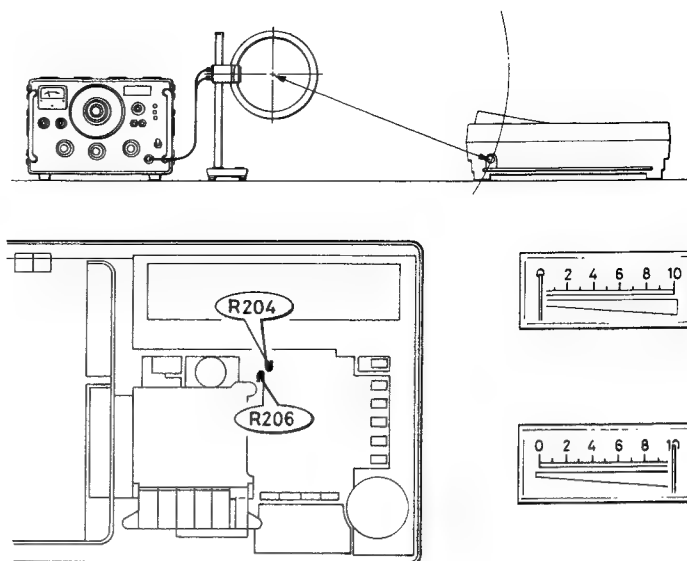


Fig. 26

MECHANISM ADJUSTMENT

PINCH ROLLER ADJUSTMENT

1. Set the unit into the PLAY mode.
2. Apply a tension gauge to the pinch roller. Read the gauge at the precise moment when the pinch roller separates from the capstan.
3. If the gauge reading falls more than 450 — 650g gr, no adjustment is necessary. If otherwise, make adjustment by changing the force of the spring coil. (See exploded view M31)

TORQUE ADJUSTMENT

1. Set the unit into the PLAY, FAST FORWARD or REWIND mode.
2. Measure the each torque with a torque gauge. They should be as following;

PLAY	30 - 60 gr/cm
FAST FORWARD	65 - 110 gr/cm
REWIND	60 - 110 gr/cm
3. If the each torque fails to reach the standard value. Clean the drive belt, flywheel, motor pulley, take-up reel, take-up pulley, idler and rewind roller with a cotton swab soaked in alcohol.

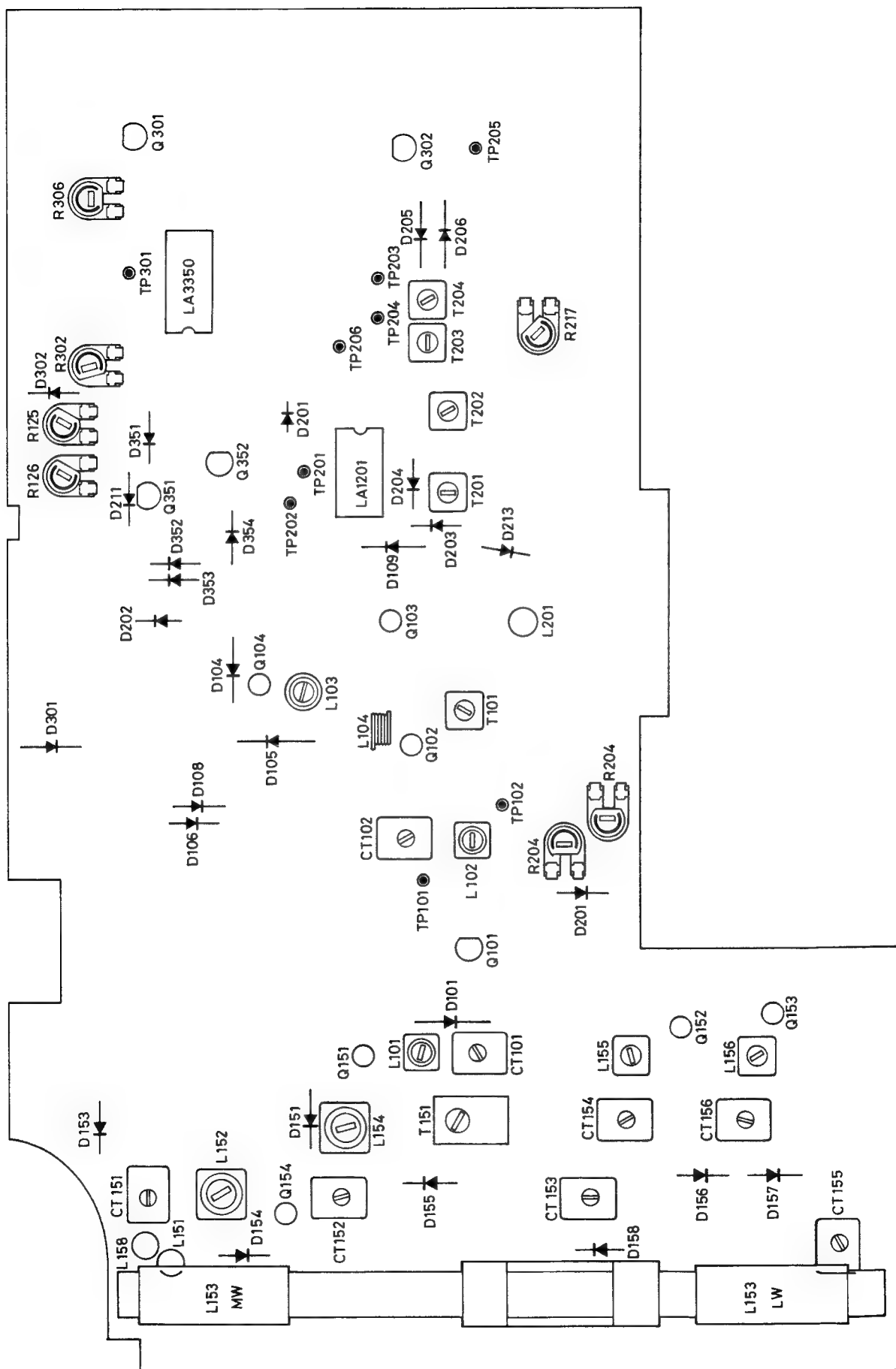
ADJUSTMENT OF AUTOMATIC SHUT-OFF MECHANISM

1. Set the unit into the PLAY mode.
2. Apply a tension gauge to the tip. Check to see that the shut-off mechanism functions between 40 — 55 grs.

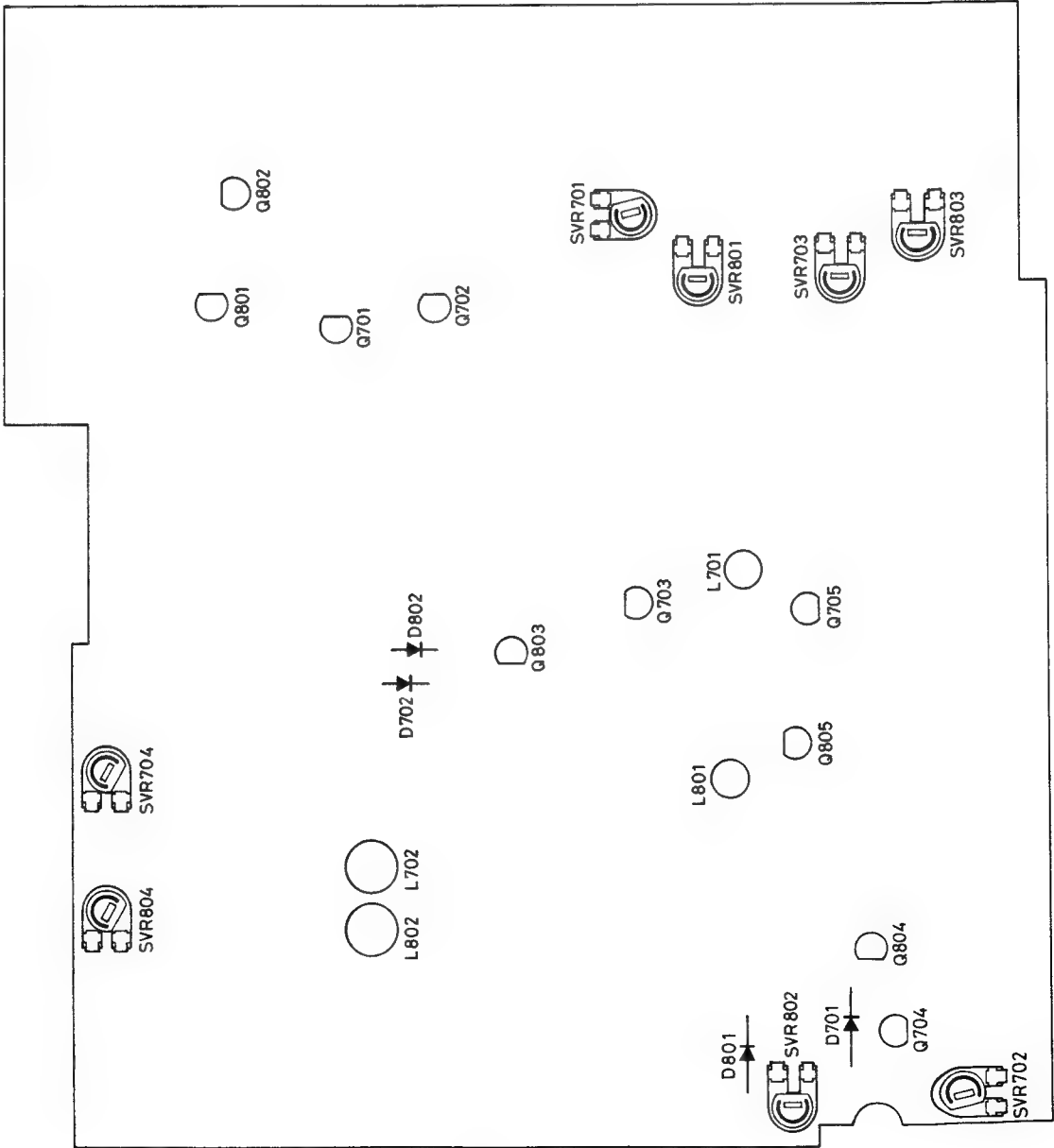
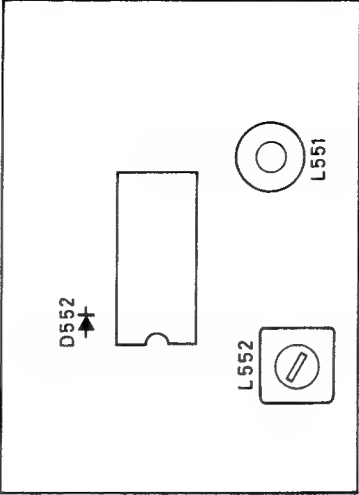
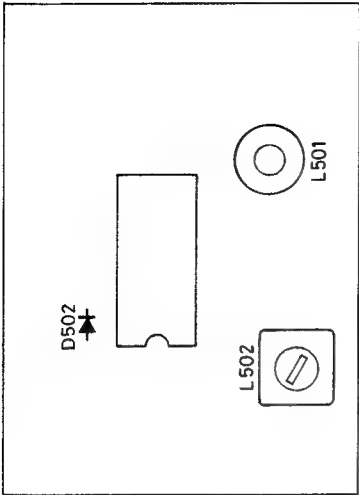
NOTE.

The tension gauge should be hold at right angles to the tip for correct measurement.

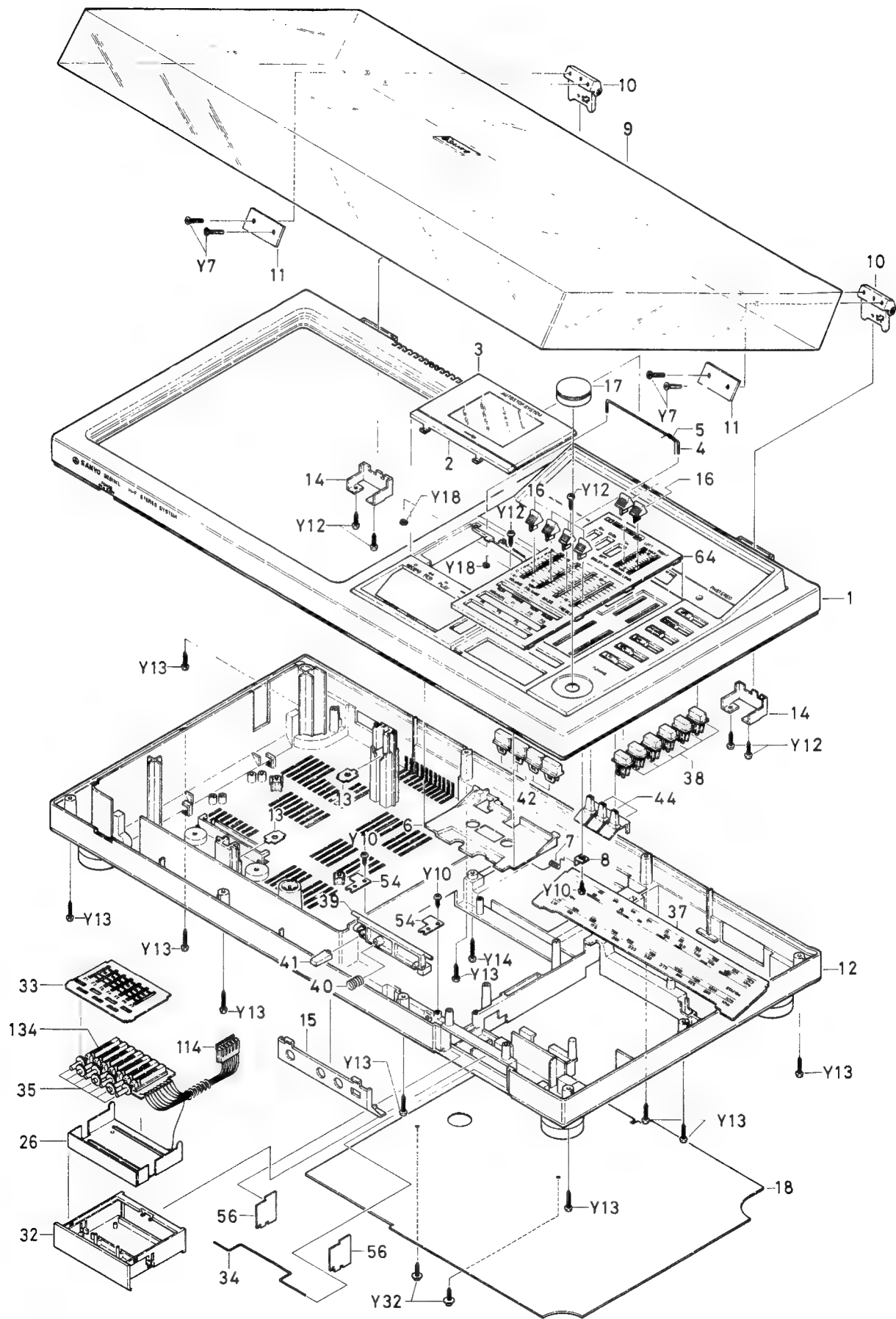
3. In case the tip pressure is outside the standard range or in case the shut-off mechanism does not work, make adjustment by changing the force of the spring coil (See exploded view M70)



PARTS LOCATION (AMP, DOLBY)



EXPLODED VIEW (CABINET)



PARTS LIST

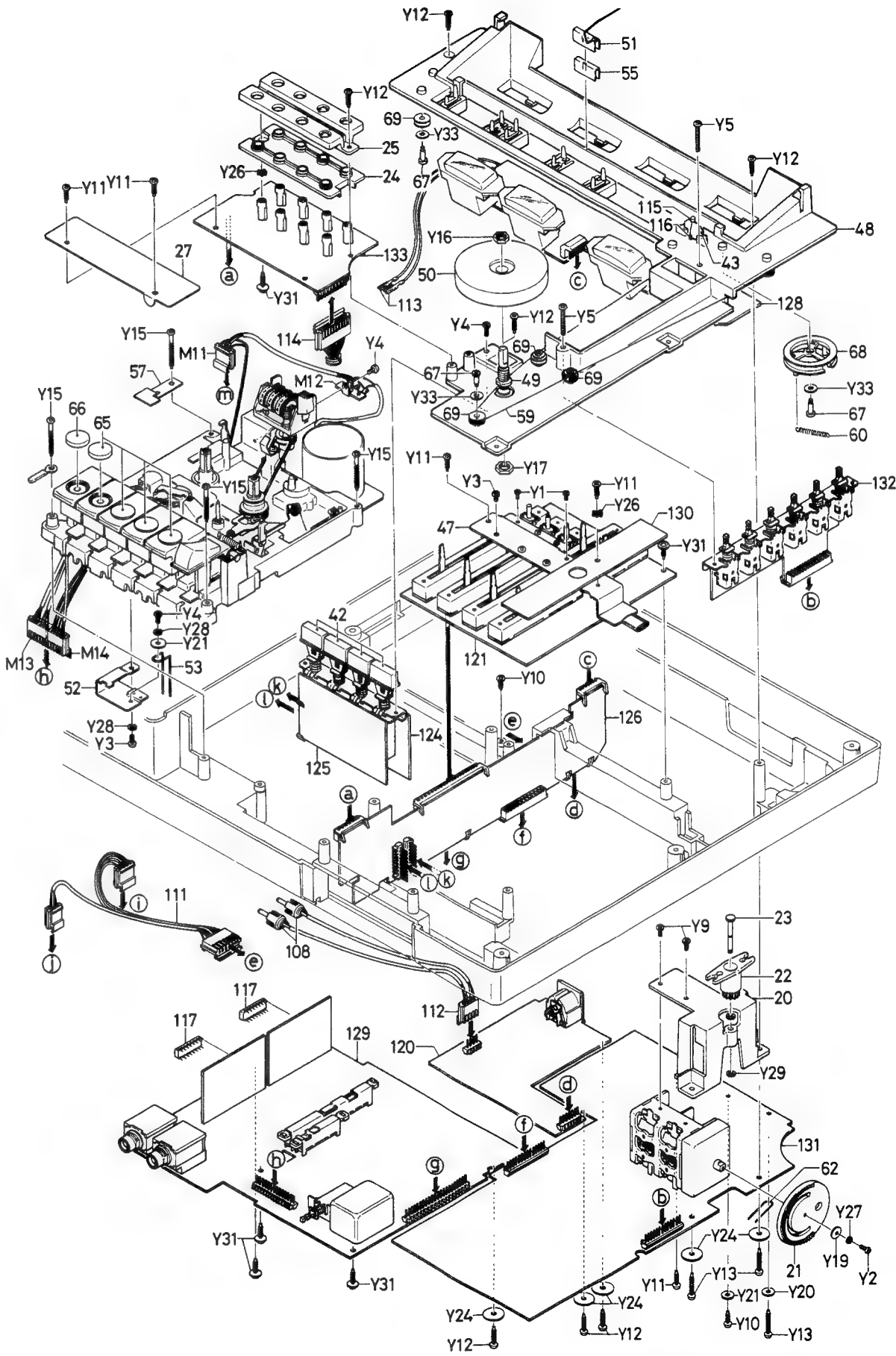
Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
PACKING				CHASSIS			
	141-6-132T-72300	Individual Carton	1	32	141-2-231T-00700	Bracket, Pre Set Box	1
	141-6-144T-36300	Styrol Filler, Dust Cover	2	33	141-2-146T-10700	Dial Scale, Bracket (32) Mtg.	1
	141-6-144T-35200	Styrol Filler	1	34	141-2-753T-14400	Shaft, Bracket (32) Stopper	1
	141-6-144T-35300	Styrol Filler	1	35	141-2-163T-37000	Rotary Knob, Pre Set Volume	7
	141-6-455T-01101	Serial Number Plate	2	36	141-2-161T-34100	Push Button, Power Switch	1
	141-6-411T-86701	Instruction Booklet	1	37	141-2-146T-10800	Dial Scale	1
	141-6-479T-20800	Label, Dolby	1	38	141-2-161T-34200	Push Button, Band Select	6
	141-2-289T-01600	Adhesive Film, Sheet Mtg.	8	39	141-2-741T-99600	Lever, Beat Cancel Select	1
	141-6-421T-29600	Schematic Diagram	1	40	141-2-851T-70800	Coil Spring, Beat Cancel Select	1
	141-6-472T-05604	Caution Label	1	41	141-2-161T-34800	Push Button, Beat Cancel	1
	141-6-231T-35400	Inner Polyethylene Bag, Turn Table	1	42	141-2-161T-34300	Push Button, AUX/PHONO/TAPE/RADIO	4
	141-6-316T-73600	Pad, Turn Table	1	43	141-2-352T-23200	Spacer, FM Stereo Lamp (LED D305) Mtg.	1
	141-2-316T-73900	Pad, Set	1	44	141-2-162T-11400	Lever Knob, Dolby Select	3
	141-6-231T-45900	Inner Polyethylene Bag, Dust Cover	1	45	141-2-464T-22500	Fixer, Power Supply Cord	1
	141-6-231T-10300	Inner Polyethylene Bag, Power Supply Cord	1	46	141-2-445T-16200	Rubber Cushion, Power Supply Cord Fixer	1
	141-6-231T-60900	Inner Polyethylene Cover, set	1	47	141-2-361T-12100	Bracket Resistor, VR P.C.B. Mtg.	1
	141-6-231T-20300	Inner Polyethylene Bag, Instruction Booklet	1	48	141-2-235T-37400	Bracket Mounting	1
	141-2-246T-13400	Sheet, Dust Cover	2	49	141-0-566T-04200	Tuning Shaft Assembly	1
	141-2-246T-13500	Sheet, Dust Cover	2	50	141-2-521T-01500	Flywheel	1
	141-6-415T-14500	Notice, Swedish	1	51	141-0-511T-03600	Pointer Assembly	1
	141-6-316T-77500	Pad Dust cover	1	52	141-2-858T-07800	Bracket, Mechanism Mtg.	1
	141-6-316T-77400	Pad, Right Side	1	53	141-2-852T-38700	Wire Spring, Bracket (52) Mtg.	1
	141-6-231T-10200	Inner Polyethylene Bag, Acce, cord	1	54	141-2-310T-01800	Bracket, Lever (39) Mtg.	2
	141-6-316T-80200	Pad, Acce.	1	55	141-2-352T-23700	Spacer, Pointer (51) Mtg.	1
ACCESSORY				56	141-2-352T-23800	Spacer, Bottom Lid Mtg.	2
	4-241T-10274	Cassette Tape C-12	1	57	141-2-465T-14200	Plate Spring, Mechanism Mtg.	1
	4-245T-00100	FM antenna Lead	1	59	141-2-340T-00100	Rope 0.34 x 1600mm	1
	4-245T-00200	AM antenna Lead	1	60	123-2-481R-00600	Coil Spring, Hook a Dial Drum	1
CABINET				61	141-2-472T-01201	Lug, Socket (118) Lead Retainer	1
1	141-9-121T-13401	Deck Panel Assembly	1	62	141-2-852T-38500	Wire Spring, Main AMP Earth	1
2	141-2-134T-08200	Head Cover	1	64	141-2-143T-68500	Marking Plate, Operation Panel	1
3	141-9-124T-15200	Top Lid Assembly	1	65	141-2-157T-24330	Inlay, Mechanism Button	4
4	141-2-753T-13000	Shaft, Top Lid Fulcrum	1	66	141-2-157T-24301	Inlay, Mechanism Button, REC	1
5	141-2-855T-09700	Coil Spring, Top Lid Opener	1	67	141-2-421T-20900	Special Screw, Dial Pulley Mtg.	7
6	141-9-243T-08700	Base Assembly, Cassette	1	68	141-2-538T-05900	Drum	1
7	141-2-855T-09800	Coil Spring, Cassette Base Up	1	69	141-2-661T-16000	Pulley, Bracket (48) Mtg.	6
8	141-2-858T-05100	Bracket, Coil Spring (7) Mtg.	1	70	141-6-479T-22900	Label, "Before using please take off this screw"	2
9	141-9-194T-00600	Dust Cover Assembly	1	ELECTRICAL PARTS			
10	141-2-251T-06101	Hinge	2	101	4-234T-06271	Fuse 3.15AT, Power AMP	1
11	141-2-351T-37300	Bracket Mounting, Hinge (10) Mtg.	2	102	4-234T-01101	Fuse 315mA T, Tape Motor	1
12	141-9-125T-09601	Bottom Lid Assembly	1	103	4-234T-04471	Fuse 1AT, Player	1
13	141-2-411T-07700	Plate Nut, Turn Table Fixer	2	104	4-234T-05300	Fuse 1.25AT, Pilot Lamp	1
14	141-2-315T-12900	Reinforcement, Hinge (10) Mtg.	2	105	4-234T-01771	Fuse 400mA T, Tuner	1
15	141-2-129T-01000	Side Lid, Microphone Socket Cover	1	107	4-159T-00200	Turn Table Complete	1
16	141-2-164T-17500	Slide Knob	6	108	4-235T-38500	Socket Lead, Power P.C.B. to Player	1
17	141-9-163T-36800	Rotary Knob Assembly, Tuning	1	109	4-236T-11400	Plug, Player Input	2
18	141-2-125T-09700	Bottom Lid	1	110	4-251T-56400	Power Transformer	1
19	141-2-421T-20100	Special Screw, Turn Table Fixer	2	111	4-243T-77173	Power Supply Cord	1
CHASSIS				112	4-235T-39100	Socket 3P+4P+7P, P.C.B. Connect	1
20	141-2-363T-05200	Bracket Capacitor, Tuner P.C.B. Mtg.	1	113	4-235T-39300	Socket 4P, Player Input	1
21	141-2-581T-06400	Gear, Variable Capacitor Mtg.	1	114	4-235T-34600	Socket, Power P.C.B. Mtg.	2
22	141-2-581T-06500	Gear, Bracket Capacitor (20) Mtg.	1	115	4-235T-42100	Socket 10P, Preset P.C.B. to Touch P.C.B.	1
23	141-2-753T-14300	Shaft, Gear (22) Mtg.	1	116	141-2-382T-05300	Light Emitting Diode SLP-114B, D305	1
24	141-2-243T-08800	Base, Touch P.C.B. Mtg.	1	117		Terminal	2
25	141-2-153T-28600	Escutcheon, Touch P.C.B. Mtg.	1	118	141-2-464T-08700	IC NE545B, Dolby P.C.B. Mtg.	2
26	141-2-322T-35100	Shield Plate, Pre Set Volume Bracket (34) Mtg.	1	119	4-231T-53600	Fixer, Heat Sink Lead Fixer	6
27	141-2-322T-36200	Shield Plate, Touch P.C.B. Mtg.	1			Switch, Voltage Selector	1
28	141-2-368T-10100	Head Sink, IC (STK-014) Mtg.	1				
30	141-2-363T-05600	Bracket Capacitor, Electrolytic Capacitor (C953) Mtg.	2				

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
EQUALIZER PCB ASSY				VOLUME PCB ASSY			
120	140-9-230T-06600	Printed Circuit Board Assembly, Equalizer	1	All resistors are Carbon P type $\pm 10\%$ 1/4W unless otherwise noted.		RESISTORS	
	4-235T-32900	Socket DIN	1			100 ohm	1
	4-236T-10271	Plug, Phono Input 4 pin	1	R964		680 ohm	2
	4-236T-10275	Plug, Phono AUX out 8 pin	1	R771, 871		1k ohm	2
IC751, 851		IC μ PC1024H or TA7129P	2	R781, 881		2.2k ohm	4
Q754, 854		Transistor 2SC1327 or 2SC1571	2	R775, 777, 875, 877			
			2	R772, 872		4.7k ohm	2
				R768, 868		5.6k ohm	2
				R769, 778		6.8k ohm	4
				869, 878			
C753, 853		CAPACITORS	2	R783, 883		12k ohm	2
C757, 857		Ceramic 68pF $\pm 10\%$ 50WV	2	R773, 774, 776, 873, 874, 876		18k ohm	6
C756, 856		Ceramic 220pF $\pm 10\%$ 50WV	2				
C755, 855		Mylar 0.0047 μ F, $\pm 5\%$ 50WV	2				
C776, 876		Mylar 0.018 μ F $\pm 5\%$ 50WV	2				
C751, 851		Mylar 0.033 μ F $\pm 20\%$ 50WV	2				
C754, 777, 854, 877		Electrolytic 3.3 μ F 25WV	2	R779, 879		680k ohm	2
C752, 852		Electrolytic 4.7 μ F 25WV	4	R770, 870		1M ohm	2
C988		Electrolytic 100 μ F 6.3WV	2	R780, 880		1.8M ohm	2
		Electrolytic 100 μ F 35WV	1				
		RESISTORS		POWER AMP PCB ASSY			
		All resistors are Carbon P type $\pm 10\%$ 1/4W unless otherwise noted.		122	140-9-230T-00100	Printed Circuit Board Assembly	1
R968		220 ohm	1		4-235T-36700	Power AMP	1
R754, 854		Carbon 270 ohm $\pm 5\%$ 1/4W	2		4-235T-31500	Socket, Headphone	1
R751, 784, 851, 884		1k ohm	4		141-2-381T-01800	Socket, Speaker	2
R756, 856		Carbon 8.2k ohm $\pm 5\%$ 1/4W	2		4-236T-10271	Bracket, Fuse Holder	10
R758, 858		Carbon 15k ohm $\pm 5\%$ 1/4W	2		4-236T-10271	Plug, 4 pin	2
R787, 887		22k ohm	2		4-236T-10200	Plug, 3 pin Power AMP input	1
R752, 753		100k ohm	4		4-237T-00100	Terminal	28
852, 853				P951	4-209T-01100	Positive Characteristic Thermistor PTH487A01 or BG471TS	1
R757, 857		Carbon 120k ohm $\pm 5\%$ 1/4W	2				
R789, 889		270k ohm	2	C986	4-223T-04600	Electrolytic 4.7 μ F 35WV	1
R759, 785, 859, 885		470k ohm	4			Non Polar	1
R755, 855		820k ohm	2	IC951	4-206T-00600	IC STK-014	1
R785, 885		1M ohm	2	Q951		Transistor 2SC1175	1
R786, 886		1.2M ohm	2	Q952		Transistor 2SD438	1
				Q953		Transistor 2SK30A	1
				Q954		Transistor 2SD545	1
				Q955		Transistor 2SD325	1
				Q751, 851		Transistor 2SC536	2
				Q960		Transistor 2SC536 or 2SC828	1
				D951, 952		Diode DS442 or 1S2473	2
				D953		Diode WZ061	1
				D954		Diode WZ130	1
				D955		Diode WZ177	1
				D956, 957		Diode DS150K	4
				958, 959			
				D960, 962		Diode DS17	2
				D961, 963		Diode DS18	2
				C760, 860		CAPACITORS	
				C952		Ceramic 470pF $\pm 5\%$ 50WV	2
						Ceramic 0.001 μ F +80-20% 50WV	1
				C761, 861		Ceramic 0.01 μ F +80-20% 50WV	10

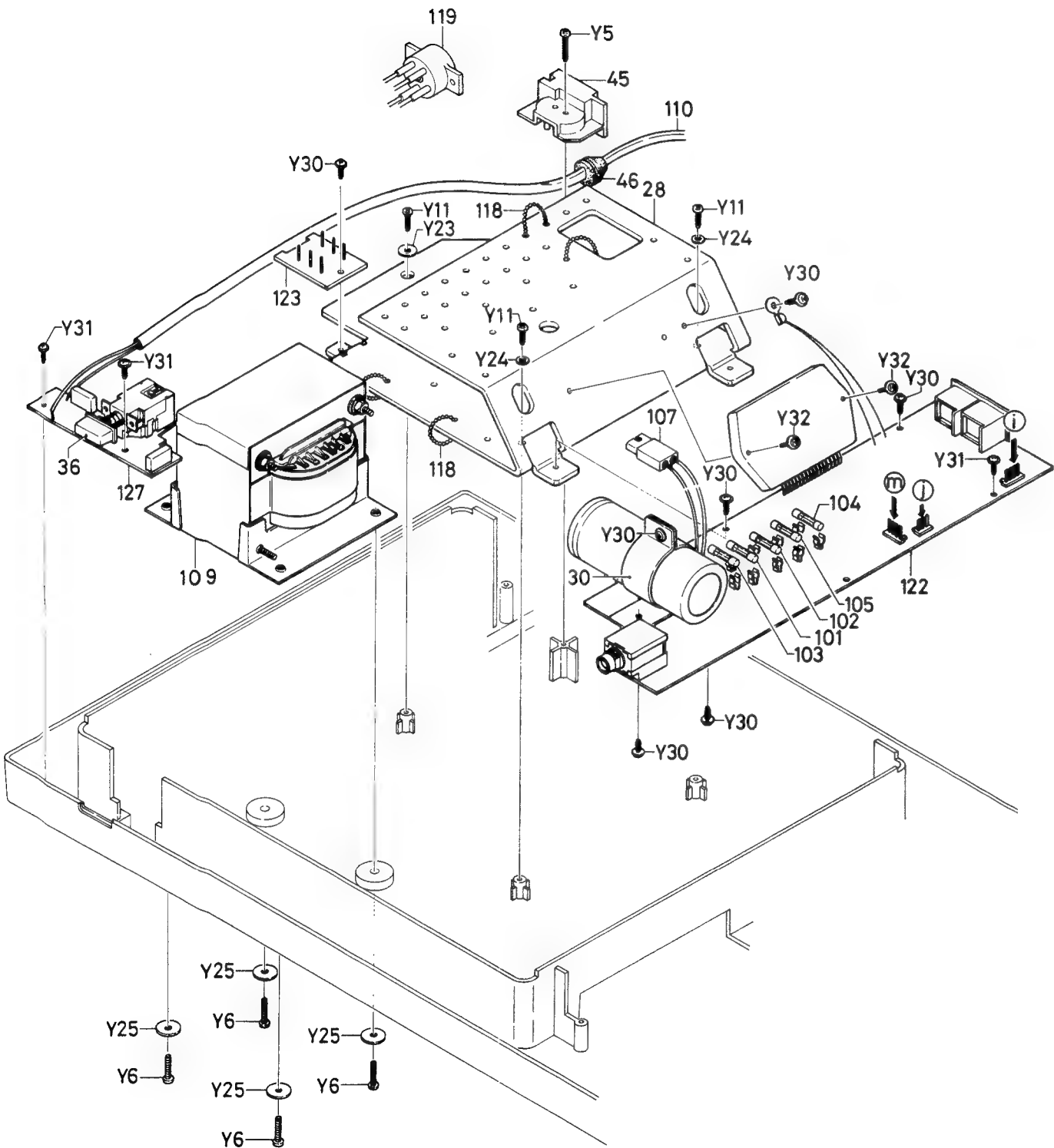
PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
POWER AMP PCB ASSY				METER PCB ASSY			
R958 R962		RESISTORS All resistors are Carbon P type $\pm 10\%$ 1/4W unless otherwise noted.	1	128	140-9-230T-22700	Printed Circuit Board Assembly, Meter	1
					4-511T-07800	Meter, VU	2
R960		Solid 5.6 ohm $\pm 10\%$ 1/2W	1		4-511T-07871	Meter, Tuning	1
					4-236T-11174	Plug, 7 pin	1
R951 R966		Metal Oxide Film 5.6 ohm $\pm 10\%$ 2W	1		4-612T-07300	Pilot Lamp 6.3V 300mA	4
					4-237T-00100	Terminal, Wrapper Pin	2
R764, 864 R767, 867		Metal Oxide Film 18 ohm $\pm 10\%$ 2W	1	MAIN AMP PCB ASSY			
				129	140-9-230T-00500	Printed Circuit Board Assembly, Main AMP	1
R952		Solid 56 ohm $\pm 10\%$ 1/2W	1		4-235T-36600	Socket, Microphone	2
				S3	4-231T-60800	Switch, Beat Cancel	1
R956, 957 R961		Solid 100 ohm $\pm 10\%$ 1/2W	2	S2	4-231T-39871	Switch, Record/Playback	1
				S1	4-231T-45672	Switch, Record/Playback	1
R766, 866, 959		Metal Oxide Film 150 ohm $\pm 10\%$ 2W	2		4-236T-10271	Plug 4 pin, to Mechanism connect	1
					4-236T-10289	Plug 22 pin, to Connector P.C.B.	1
R955		Metal Oxide Film 220 ohm $\pm 10\%$ 2W	1		4-236T-10275	Plug 8 pin, to R/P Head & E Head	1
				SVR701,801	4-222T-39577	Semi Fixed Resistor 50k (B)	2
R765, 865, 967		330 ohm	2	SVR702,802	4-222T-39574	Semi Fixed Resistor 5k (B)	2
				SVR703,803	4-222T-39576	Semi Fixed Resistor 20k (B)	2
R954		560 ohm	1	SVR704,804	4-222T-39578	Semi Fixed Resistor 100k (B)	2
				L701, 801	4-253T-01019	High Frequency Choke Coil 4.7mH	2
R965, 971 R953		1K ohm	3	L702, 802	4-252T-05200	Choke Coil 10mH	2
				Q701, 702		Transistor 2SC1327S or 2SC1571G	4
R761, 763, 861, 863		8.2k ohm	1	Q703, 704, 705, 803, 804, 805	4-258T-13102	Transistor 2SC536G AUD	6
						OSC Pack	1
R762, 862 R970		10k ohm	3	D701, 801		Diode 1S188AM	2
				D702, 802		Diode DS442 or 1S2473	2
R790, 890		22k ohm	1			CAPACITORS	
				SVR701,801	4-222T-39577	Ceramic 35pF $\pm 1\text{pF}$ 50WV	2
R790, 890		56k ohm	2	C722, 822		Ceramic 100pF $\pm 10\%$ 50WV	2
				SVR702,802	4-222T-39574	Ceramic 150pF $\pm 5\%$ 50WV	2
R790, 890		68k ohm	1	SVR703,803	4-222T-39576	Ceramic 220pF $\pm 10\%$ 50WV	4
				SVR704,804	4-222T-39578	Ceramic 470pF $\pm 5\%$ 50WV	2
R790, 890		220k ohm	4	L701, 801	4-253T-01019	Ceramic 680pF $\pm 10\%$ 50WV	2
				L702, 802	4-252T-05200	Ceramic 0.001 μF $\pm 20\%$ 50WV	2
R790, 890		390k ohm	2	Q701, 702		Ceramic 560pF $\pm 10\%$ 50WV	2
				Q703, 704, 705, 803, 804, 805	4-258T-13102	Mylar 0.0033 μF $\pm 5\%$ 50WV	1
R790, 890		560k ohm	1	C716, 816		Mylar 0.0039 μF $\pm 10\%$ 50WV	2
				D701, 801		Mylar 0.0068 μF $\pm 5\%$ 50WV	2
R790, 890		Solid 4.7ohm $\pm 10\%$ 1/2W	2	C705, 805		Mylar 0.027 μF $\pm 10\%$ 50WV	2
				D702, 802		Mylar 0.1 μF $\pm 20\%$ 50WV	1
AMP CONNECTOR PCB ASSY				C714, 814		Electrolytic 0.47 μF 10WV	2
123	140-9-230T-00200	Printed Circuit Board Assembly, Power AMP Connector	1	C660		Electrolytic 1 μF 25WV	7
FUNCTION PCB ASSY				C711, 811			
124	140-9-230T-00300	Printed Circuit Board Assembly, Function	1	C712, 713			
	4-235T-37076	Socket 9 pin	1	719, 812			
FUNCTION PCB ASSY				813, 819			
125	140-9-230T-18700	Printed Circuit Board Assembly, Function	1	903			
	4-231T-61100	Switch, Input Select	1	C707, 807		Electrolytic 47 μF 6.3WV	2
	4-235T-37076	Socket, 9 pin	1	C703, 706, 708, 803, 806, 808		Electrolytic 4.7 μF 25WV	6
		Carbon 47k ohm $\pm 10\%$ 1/4W	2	C904		Electrolytic 47 μF 16WV	1
CONNECTOR PCB ASSY				C905		Electrolytic 100 μF 16WV	1
126	140-9-230T-00500	Printed Circuit Board Assembly, Connector	1	C906		Electrolytic 220 μF 16WV	1
	4-235T-38779	Socket, 22 pin	2			RESISTORS	
	4-235T-38772	Socket, 15 pin	1	R702, 802		10 ohm	2
	4-235T-38794	Socket, 7 pin unlock	1	R689		Solid 56 ohm $\pm 10\%$ 1/2W	1
	4-235T-37075	Socket, 8 pin	1	R720, 820		150 ohm	2
	4-235T-37074	Socket, 7 pin lock	1	R688		Solid 220 ohm $\pm 10\%$ 1/2W	1
	4-236T-10276	Plug, 9 pin	2	R705, 805		180 ohm	2
	4-236T-10274	Plug, 7 pin	1	R721, 821		220 ohm	2
POWER SUPPLY PCB ASSY				R710, 810		820 ohm	2
127	140-9-230T-22600	Printed Circuit Board Assembly, Power Supply	1				
S14	4-231T-60900	Switch, Power	1				
C984, 985	4-237T-00100	Terminal, Wrapper Pin	4				
	4-223T-04700	Capacitor 0.047 μF , Noise Cancelar	2				

EXPLODED VIEW (CHASSIS)



EXPLODED VIEW (CHASSIS)



PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
MAIN AMP PCB ASSY				SUB VOLUME PCB ASSY			
R722,732, 822,832, 903		1k ohm	5	D385		Diode 1S2692A	1
R729,829		1.5k ohm	2	C381,382		Mylar 0.022µF ±10% 50WV	2
R716,816		1.8k ohm	2	R381,382		Carbon 15k ohm ±5% 1/4W	2
R701		3.3k ohm	1	TUNER PCB ASSY			
R725,825		4.7k ohm	2	L131	140-9-230T-03600	Printed Circuit Board Assembly, Tuner	1
R718,818		5.6k ohm	2	L101	141-2-322T-36000	Shield Plate	1
R709,712, 724,809, 812,824		6.8k ohm	6	L102	4-257T-23630	Antenna Coil	1
R715,815		8.2k ohm	2	L103	4-265T-04230	V.H.F. Coil	1
R704,731		10k ohm	4	L104	4-265T-03530	V.H.F. Coil	1
R728,828		Carbon 15k ohm ±5% 1/4W	2	L151	4-253R-11160	R.F. choke coil 1µH ±10%	1
R727,827		18k ohm	2	L152	4-253R-12900	R.F. Choke Coil 27µH	1
R719,730, 819,830		22k ohm	3	L153	4-257T-20430	Antenna Coil	1
R706,806		47k ohm	4	L154	4-257T-20301	Antenna Coil Assembly, LW & MW	1
R734,834		100k ohm	2	L155	4-258T-15030	OSC Coil	1
R708,726		180k ohm	2	L156	4-258T-14930	OSC Coil	1
R808,826		220k ohm	4	L158	4-258T-14830	OSC Coil	1
R713,723		470k ohm	4	L201	4-253R-11160	R.F. Choke Coil 1µH ±10%	1
R813,823		680k ohm	1	CF101,102	4-255R-10700	Choke Coil 15µH	1
R901					4-256T-80400		
(DOLBY PCB SELECTION)					4-256T-80471		
	4-235T-32100	or Socket, IC	2		4-256T-80472	I.F. Filter 10.7MHz Red, Blue, Orange, Balck, White, *Pair use	2
	4-235T-32400	Plug	2	T101	4-256R-20830	I.F.T. 10.7MHz	1
	4-236T-09600	Shield Plate, L502 & L552 Mgt.	2	T201	4-256R-15830	I.F.T. 10.7MHz	1
D502,552	141-2-322T-33300	Diode 1S188AM	2	T202	4-256R-00230	I.F.T. 455KHz	1
L501,551	4-252T-05600	Low Frequency Choke Coil	2	T203	4-256R-08330	I.F.T. 10.7MHz	1
L502,552	4-252T-02800	Low Frequency Choke Coil 23mH Variable	2	T204	4-256R-08430	I.F.T. 10.7MHz	1
				T151	4-256T-07871	I.F. Filter 470KHz	1
CAPACITORS					141-2-323T-00100	Pan Head Screw with Washer 3 x 6 mm, VC Mtg.	2
C515,565		Ceramic 150pF ±5% 50WV	2		141-2-322T-38500	Shield Box	1
C518,568		Mylar 0.0022µF ±20% 50WV	2	CO102	123-2-471R-10400	Shield Plate	1
C517,567		Mylar 0.0027µF ±20% 50WV	2	CO101	123-2-471R-10400	Core	1
C516,566		Mylar 0.0039µF ±20% 50WV	2		123-2-471R-10600	Core	1
C511,561		Mylar 0.0047µF ±5% 50WV	2	CT101,102	4-224R-11671	Trimmer 8pF	2
C514,564		Mylar 0.0056µF ±5% 50WV	2	CT151, 152, 153, 154	4-224R-11671	Trimmer 8pF	4
C513,563		Mylar 0.027µF ±5% 50WV	2	CT155,156	4-224R-07300	Trimmer 30pF	2
C506,566		Mylar 0.047µF ±5% 50WV	2	CV151,152	4-224T-07700	Variable Capacitor, 426pF x2 & 100k	2
C503,509		Electrolytic 0.1µF 10WV	4	VR128			1
553,559				R206	4-222T-39572	Semi Fixed Resistor 1k (B)	1
C510,560		Electrolytic 0.33µF 10WV	2	R204,306	4-222T-39573	Semi Fixed Resistor 2k (B)	2
C504,506		Electrolytic 1µF 25WV	4	R125,126, 302	4-222T-39574	Semi Fixed Resistor 5k (B)	3
554,555				R217	4-222T-39577	Semi Fixed Resistor 50k (B)	1
C507,508, 512,557, 558,562		Electrolytic 10µF 16WV	6		4-236T-10282	Plug 15 pin	1
C502,552		Electrolytic 47µF 16WV	2	RL151,152, 153	4-232T-04500	Relay	3
C501,551		Electrolytic 220µF 10WV	2				
RESISTORS				TP101,102, 201,202, 203,204, 205,206, 301	4-237T-00100	Terminal, Wrapper Pin	9
		All resistors are Carbon P type ±10% 1/4W unless otherwise noted.			4-236T-10280	Plug 13 pin	1
R502,508, 552,558		180 ohm	4		4-235T-37100	Socket FM DIN	1
R501,511, 551,561		1k ohm	4		4-235T-37200	Socket AM DIN	1
R506,556		Carbon 3.3k ohm ±5% 1/4W	2	Q101		FET 2SK61Y	1
R507,557		Carbon 47k ohm ±5% 1/4W	2	Q151,152, 103		Transistor 2SC535E	1
R509,559		100k ohm	2	Q104,153, 154		Transistor 2SC930E	3
R505,555		Carbon 150k ohm ±5% 1/4W	2	Q301,302		Transistor 2SC930D	3
R504,554		270k ohm	2	Q351		Transistor 2SC536E	2
R503,553		Carbon 680k ohm ±5% 1/4W	2	Q352		Transistor 2SB598E	1
SUB VOLUME PCB ASSY				IC201		Transistor 2SC536F	1
130	141-9-230T-19800	Printed Circuit Board Assembly, Sub Volume	1	LA1201B1		LA1201B1	1
D381,382 383,384		Diode 1S2473	4	LA3350A		LA3350A	1
				D101,103, 105		Diode 1SV53A	3
				D104		Diode 1S553	1

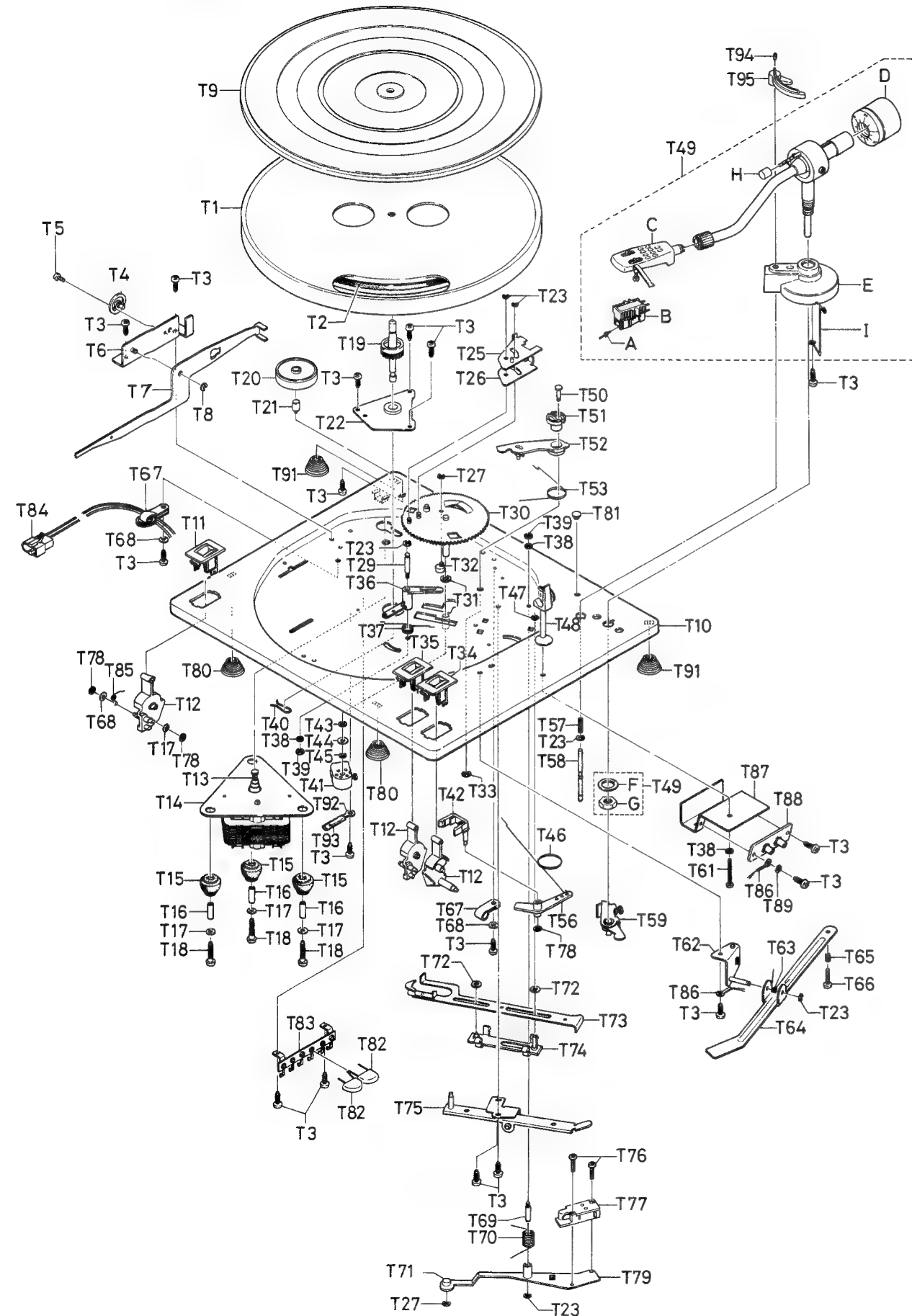
PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
TUNER PCB ASSY				TUNER PCB ASSY			
D102,109 151,155, 158,203, 204,213, 301,302, 351,352, 353,107		Diode 1S2473	14	C138		Electrolytic 1μF +40 -20% 16WV	1
D106		Diode 1S2472	1	C143		Electrolytic 1μF +40 -20% 25WV	1
D108,153, 156,157, 201,211, 212,354		Diode 1S2473 or DS442	8	C302		Electrolytic 1μF +150 -10% 25WV	1
D154		Diode WZ-061	1	C353		Electrolytic 2.2μF +40 -20% 16WV	1
D202		Diode 1S2692A	1	C221		Electrolytic 4.7μF +150 -10% 16WV	1
D205,206		Diode 1S188FM	2	C218		Electrolytic 10μF +100 -10% 10WV	1
C128		CAPACITORS	1	C309,312, 314,315, 316,317, 318,352 C206		Electrolytic 10μF +100 -10% 16WV	8
C112,125		Ceramic 2pF ±0.25pF 50WV	2			Electrolytic 100μF +100 -10% 10WV	1
C132		Ceramic 5pF ±0.25pF 50WV	1	C308,319		Electrolytic 100μF +100 -10% 16WV	2
C134		Ceramic 10pF ±5% 50WV	1	C210		Electrolytic 220μF +100 -10% 6.3WV	1
C150,152, 153		Ceramic 8pF ±0.5pF 50WV	1	C330		Electrolytic 470μF +100 -10% 6.3WV	1
C157		Ceramic 10pF ±5% 50WV	3			RESISTORS	
C177		Ceramic 15pF ±5% 50WV	1			All resistors are Carbon P type ±5% 1/4W unless otherwise noted.	
C113		Ceramic 15pF ±10% 50WV	2	R155		10 ohm	1
C163		Ceramic 16pF ±5% 50WV	1	R350		Solid 10 ohm ±10% 1/2W	1
C207,170		Ceramic 20pF ±5% 50WV	1	R183		22 ohm	1
C102,211, 222,223, 224,231		Ceramic 3pF ±0.25pF 50WV	1	R181		33 ohm	1
C115		Ceramic 30pF ±5% 50WV	1	R172		39 ohm	1
C104,114		Ceramic 30pF ±10% 50WV	2	R104,105, 111,115, 163,312, 117		100 ohm	7
		Ceramic 100pF ±10% 50WV	6	R205		150 ohm	1
		Ceramic 470pF ±20% 50WV	1	R164,211, 103		270 ohm	3
		Ceramic 0.001μF +80 -20% 50WV	2	R114,116, 160,113		330 ohm	4
		Ceramic 0.0022μF ±10% 50WV	3	R315,322		390 ohm	2
		Ceramic 0.01μF +80 -20% 50WV	6	R103		470 ohm	1
		Ceramic 0.022μF +80 -20% 50WV	17	R124,208 352		560 ohm	3
		Styrol 440pF ±5% 125WV	1	R152		680 ohm	1
		Styrol 100pF ±5% 125WV	1	R132,157, 172,182, 212,224, 225,307, 323,355, 100		1k ohm	11
		Styrol 250pF ±5% 125WV	1	R231		Carbon 1k ohm ±10% 1/4W	1
		Styrol 1500pF ±10% 50WV	1	R127		1.5k ohm	1
		Styrol 4700pF ±5% 125WV	1	R161		1.8k ohm	1
		Mylar 0.001μF ±20% 50WV	3	R119,218, 108		2.2k ohm	3
		Mylar 0.001μF ±10% 50WV	2	R156		2.7k ohm	1
		Mylar 0.0033μF ±20% 50WV	1	R171,178, 184,203, 304,326 357		3.3k ohm	7
		Mylar 0.0047μF ±20% 50WV	1	R165,313, 317		3.9k ohm	3
		Mylar 0.01μF ±20% 50WV	8	R134,308, 311,313 R136,174 177,202, 214,215, 222,226, 227,361		4.7k ohm	4
		Mylar 0.022μF ±20% 50WV	3	R154,159 170		5.6k ohm	10
		Mylar 0.033μF ±20% 50WV	2	R303		6.8k ohm	3
		Electrolytic 0.1μF +40 -20% 10WV	1	R135,216, 301,305 358		8.2k ohm	1
		Electrolytic 0.22μF +40 -20% 10WV	1			10k ohm	5
		Electrolytic 0.33μF +40 -20% 10WV	1				
		Electrolytic 0.47μF +40 -20% 10WV	1				

PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
TUNER PCB ASSY				FM TOUCH PCB ASSY			
R153,158, 223,356, 230 R109		12k ohm	5	R401,402, 403,404, 405,406, 407,408		5.1M ohm	8
R131,316, 321,364		Carbon 15k ohm ±2% 1/4W 15k ohm	1 4	FM PRESET PCB ASSY			
R166		27k ohm	1	134	140-9-230T-04000	Printed Circuit Board Assembly, FM Preset	1
R162,167, 175,351, 354		33k ohm	5	R441,442, 443,444, 445,446, 447	4-222T-52400	Variable Resistor 100k (B)	7
R362,363 R101,102, 106,129, 122,133, 325,327, 328,353		56k ohm 100k ohm	2 10	D411,412, 413,414, 415,416, 417		Diode 1S2472	7
R314,318 R123		680k ohm 820k ohm	2 1	R432,433, 434,435, 436,437, 438		Carbon 15k ohm ±2% 1/8W	7
R112,110, 121 R107		1M ohm 1.8M ohm	3 1	MPX PCB ASSY			
BAND SELECTOR PCB ASSY				135	140-9-230T-24000	Printed Circuit Board Assembly MPX	1
132	140-9-230T-03800	Printed Circuit Board Assembly, Band Select Socket 13 pin Push Switch	1	L301,302	4-252T-03200	Choke Coil 10mH Plug 7P	2
	4-235T-38700		1	CR301,302	4-236T-10574	CR Combination, MPX Filter	2
R251,252, 253,254 D251	4-231T-61200	Carbon Resistor 100k ohm ±5% 1/4W Diode 1S2473	4 1	C341,342	4-227T-01410 or 4-227T-01400	Styrol 6800pF ±5% 50WV	2
FM TOUCH PCB ASSY				SCREW MOUNTING			
133	140-9-230T-03900	Printed Circuit Board Assembly, FM Touch Plug, 7 pin Plug, 10 pin IC SAS6600 IC SAS6700 Light Emitting Diode SLP-114B	1 1 1 1 1 8	Y1		Pan Head Screw 2.6x4mm	5
IC401 IC402			1 1	Y2		Pan Head Screw 2.6x6mm	1
D401,402, 403,404, 405,406, 407,408			1 1 1 1	Y3		Pan Head Screw 3x4mm	5
D418		Diode 1S2473 Escutcheon	1 8	Y4		Pan Head Screw 3x6mm	2
	141-2-153T-28700			Y5		Pan Head Screw 3x20mm	2
C401,402 403,404, 405,406, 407,408		CAPACITORS	8	Y6		Pan Head Screw 4x12mm	4
C421,422, 423,424, 425,426, 427,428		Ceramic 0.001μF +80 -20% 50WV	8	Y7		Flat Head Screw 4x12mm	4
C412		Ceramic 0.001μF +80 -20% 50WV	8	Y8		Tapping Screw 3x4mm	1
C411		Electrolytic 10μF +100 -10% 25WV Electrolytic 100μF +100 -10% 16WV	1 1 1	Y9		Tapping Screw 3x6mm	1
		RESISTORS		Y10		Tapping Screw 3x8mm	6
		All resistors are Carbon P type ±5% 1/8W unless otherwise noted.		Y11		Tapping Screw 3x10mm	17
R453,454 R451		Solid 10 ohm ±10% 1/2W 1k ohm	2 1	Y12		Tapping Screw 3x12mm	12
R421,422, 423,424, 425,426, 427,428		3.3k ohm	8	Y13		Tapping Screw 3x16mm	12
R452,456 R457		12k ohm 27K ohm	2 1	Y14		Tapping Screw 3x20mm	2
R455		33k ohm	1	Y15		Tapping Screw 3x25mm	4
R461,462, 463,464, 465,466, 467,468		3.9M ohm	8	Y16		Nut 7ø x 0.75mm	1
				Y17		Nut 8ø x 0.75mm	1
				Y18		Nut 2.6mm	2
				Y19		Washer 2.6mm	1
				Y20		Washer 3 x 8 x 0.5mm	1
				Y21		Washer 3 x 8 x 1mm	2
				Y22		Washer 3 x 10 x 0.5mm	1
				Y23	141-2-453T-01700	Washer 3 x 10 x 1mm	1
				Y24	141-2-453T-01000	Washer 3 x 12 x 1mm	3
				Y25		Washer 4 x 10 x 1mm	4
				Y26		External Tooth Lock Washer 3mm	2
				Y27		Spring Washer 2.6mm	1
				Y28		Spring Washer 3mm	2
				Y29		External "E" Ring 2mm	1
				Y30		Tapping Screw with Washer 3 x 8mm	7
				Y31		Tapping Screw with Washer 3 x 10mm	4
				Y32		Tapping Screw with Washer 3 x 12mm	2
				Y33		Ethylene Washer 3 x 6 x 0.5mm	7
					141-2-453T-02400	Tapping Screw 3 x 14mm	1
						Washer 3 x 10 x 2mm	1

EXPLODED VIEW (TURNABLE) _____



PARTS LIST

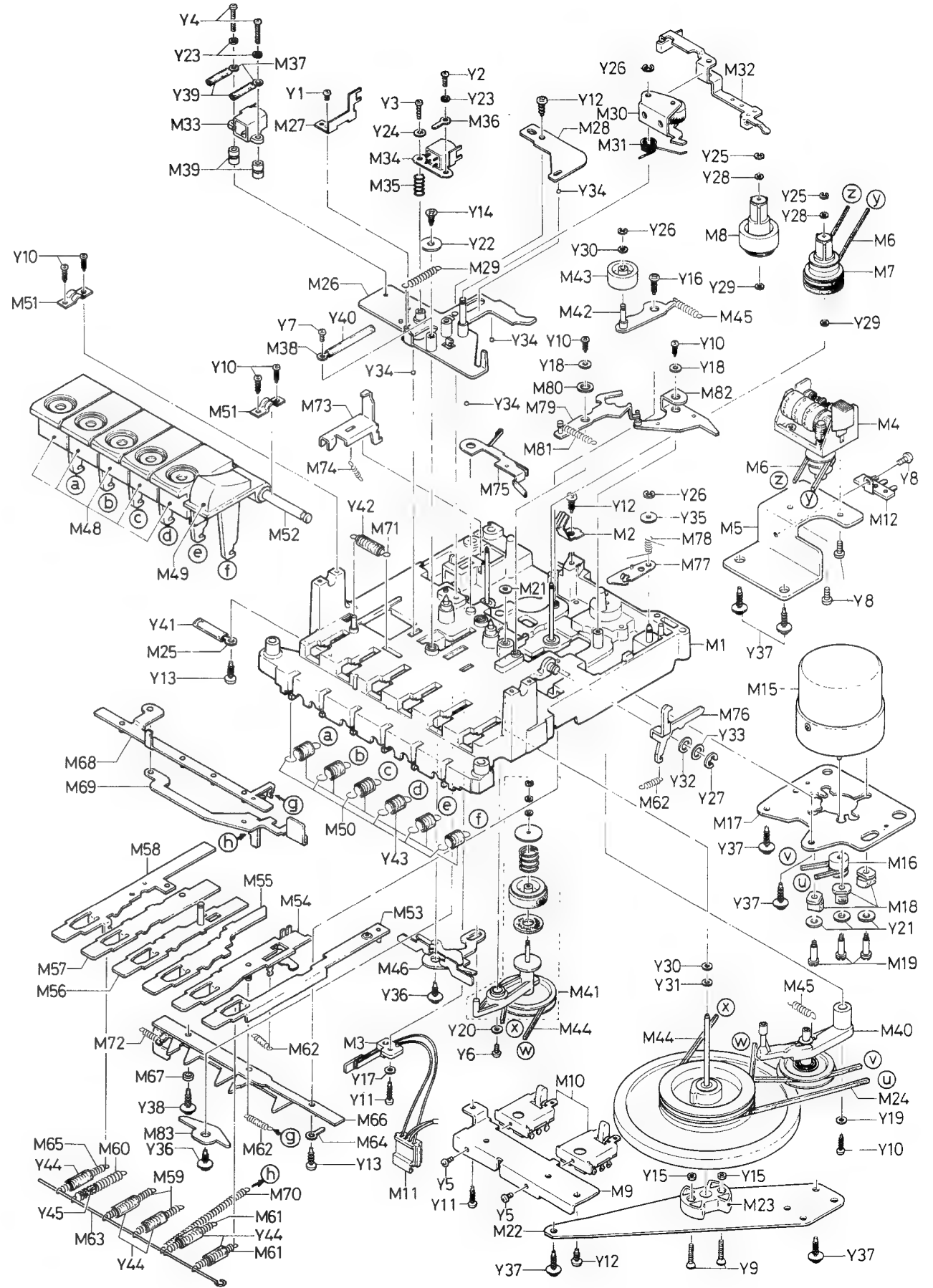
Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
TURNTABLE				TURNTABLE			
T1	FJA-620016	Turn Table	1	T85	FJA-894650	Click Spring	1
T2	FJA-700515	Drive Belt	1	T86		4ø Lug	2
T3		Tapping Screw 3 x 8mm	16	T87	FJA-894759	Terminal Brakcet	1
T4	FJA-893040	Eccentricity Pin	1	T88	FJA-893493	Plug Assembly, 2 pin	1
T5		Pan Head Screw 3 x 6 mm	1	T89		External Tooth Lock Washer 3mm	1
T6	FJA-893046	Speed Select Base	1	T91	FJA8901663	Coil Spring	2
T7	FJA-870402	Speed Select Arm	1	T92	FJA890755	Lug	1
T8		External "E" Ring 3mm	1	T93		UL Tube 3ø x 50mm	1
T9	FJA870725	Turn table Mat	1	T94		Head less screw 2.6 x 4	1
T10	FJA-850966	Unit Plate Assembly	1	T95	FJA-893135	Elevation plate	1
T11	FJA-870895	Speed Select Cover	1	T49	FJA851131	Pick up Assembly	1
T12	FJA-894649	Speed Select Lever	3	A	N107A	Stylus	1
T13	FJA-7032622	Motor Pulley	1	B	MM107A	Careridge	1
T14	FJA-631170	Motor Assembly	1	C	FJA-A-407-3	Head Sheel	1
T15	FJA-702230	Rubber Cushion	3	D	FJA-Z-180	Weight	1
T16	FJA-8936591	Pipe	3	E	FJA-871081	Pickup Base	1
T17		Fiber Washer 3.2x10x0.8mm	4	F		Washer 12ø	1
T18		Thread Rolling Screw 3x20mm	3	G		Nut 12m	1
T19	FJA7012051	Turn Table Shaft	1	H	FJA-AW-0108	I.F.C. Weight	1
T20	FJA-890876	Adaptor	1	I	FJA-SP-82	I.F.C Stand	1
T21	FJA-890675	Adaptor Base	1				
T22	FJA-7005141	Turn Table Shaft Bracket	1				
T23		External "E" Ring 3.2mm	6				
T25	FJA894738	Actuating Pawl	1				
T26	FJA894736	Actuating Guide	1				
T27	FJA-E813152	E Ring	2				
T29	FJA-890322	Reject Lever Shaft	1				
T30	FJA-891210	R Gear Assembly	1				
T31		Fiber Washer 5x10x0.5mm	1				
T32	FJA-E817790	Eccentricity Pin	1				
T33	FJA-E813153	E Ring	1				
T34	FJA-8708952	Cueing Cover	1				
T35	FJA-8708951	Reject Cover	1				
T36	FJA-890218	Kick Lever	1				
T37	FJA-890259	Coil Spring	1				
T38		Spring Washer 3 mm	3				
T39		Nut 3mm	2				
T40	FJA-E271110	Stopper	1				
T41	FJA-890721	Switch Lever Assembly	1				
T42	FJA-894651	Reject Support	1				
T43		Fiber Washer 5x10x1mm	1				
T44		Fiber Washer 5x10x0.5mm	1				
T45		External "E" Ring 4mm	1				
T46	FJA-8903792	Reject Coil Spring	1				
T47		Circular Ring 3.5mm	1				
T48	FJA-893369	Rest Assembly	1				
T50	FJA-890620	Gear Stop Nut	1				
T51	FJA-890619	Eccentricity Shaft	1				
T52	FJA-890618	Gear Stop Arm	1				
T53	FJA-890628	Coil Spring	1				
T56	FJA-891980	Reject Ring	1				
T57	FJA-E832780	Elevation Coil Spring	1				
T58	FJA8923264	Elevation Shaft Assembly	1				
T59	FJA-893583	Plate Pick Up Table Assembly	1				
T61		Pan Head Screw 3x30mm	1				
T62	FJA-893615	Cueing Base Assembly	1				
T63	FJA-893618	Seesaw Coil Spring	1				
T64	FJA-893616	Cue Seesaw	1				
T65	FJA-E813681	Coil Spring	1				
T66		Pan Head Screw 3x12mm	1				
T67	FJA-890593	Cord Clamper	2				
T68		Fiber Washer 3.2x8x0.5mm	3				
T69	FJA-8903222	Reject Lever Shaft	1				
T70	FJA-892331	Arm Coil Spring	1				
T71	FJA-890995	Eccentricity Pin	1				
T72	FJA-890765	Washer	2				
T73	FJA-8916351	Actuating Arm	1				
T74	FJA-8700381	Actuating Base	1				
T75	FJA-890794	Seesaw Assembly	1				
T76		Pan Head Screw 3x14mm	2				
T77	FJA-890334	Micro Switch	1				
T78		Circular Ring 3mm	1				
T79	FJA-8909942	Switch Arm Assembly	1				
T80	FJA-8901661	Coil Spring	2				
T81	FJA-891258	Cap	1				
T82		Electrical Capacitor 0.1/4F 50WV	1				
T83	FJA-891849	Terminal Board	1				
T84	FJA-894648	Power Supply Cord	1				

Ref. No.	Part No.	Description	Q'ty
MECHANISM			
M1	141-0-311T-04900	Chassis Assembly	1
M2	141-2- 53T-47200	Plate Spring, Cassette Pressure	1
M3	4-231T-50900	Switch, Power	1
M4	141-2-811T-05600	Counter	1
M5	141-2-812T-06200	Bracket, Counter Mtg.	1
M6	141-2-564T-17200	Belt, Counter Belt	1
M7	141-0-531T-04491	Reel Plate Assembly	1
M8	141-0-531T-01701	Reel Plate Assembly Supply	1
		Reel	
M9	141-2-365T-33500	Bracket Switch, Muting Switch	1
M10	4-231T-43000	Switch, Muting	2
M11	4-235T-39500	Socket 4 pin, Motor Lead	1
M12	4-237T-05800	Terminal Board, Motor Lead	1
M13	4-235T-39800	Socket 4 pin, Mechanism	1
		Switch Lead	
M14	4-235T-39900	Socket 8 pin, R/P & E Head	1
		Lead	
M15	4-527T-08300	DC Motor	1
M16	141-0-661T-66191	Motor Pulley Assembly	1
M17	141-2-378T-08200	Bracket Motor, Motor Mtg.	1
M18	141-2-445T-11801	Rubber Cushion, Motor Mtg.	3
M19	141-2-421T-12501	Special Screw, Motor Mtg.	3
M20	141-0-521T-07000	Flywheel Assembly	1
M21	141-2-457T-04300	Special Washer, Flywheel Mtg.	1
M22	141-2-524T-07000	Bracket, Flywheel Mtg.	1
M23	141-2-572T-05800	Bracket, Flywheel Support	1
M24	141-2-564T-15400	Main Belt	1
M25	123-2-472R-00600	Lug, Flywheel Earth Lead	1
		Fixer	
M26	141-0-731T-11700	Slide Assembly, Head Slide	1
M27	141-2-821T-10201	Tape Guide	1
M28	141-2-853T-38500	Plate Spring, Head Slide (M26)	1
		Hold	
M29	141-2-851T-99200	Coil Spring, Head Slide	1
		Connect of Operation	
M30	141-0-545T-02500	Pinch Roller Lever Assembly	1
M31	141-2-852T-09400	Wire Spring, Pinch Roller	1
		Pressure	
M32	141-0-721T-033912	Lever Shut Off Assembly	1
M33	4-242T-20700	Erase Head	1
M34	4-242T-20200	Record/Playback Head	1
M35	141-2-851T-49700	Coil Spring, Record/Playback	1
		Head Azimuth Adjust	
M36	123-2-472R-00200	Lug, Record/Playback Head	1
		Earth	
M37	141-2-472T-05900	Lug, Erase Head Lead Fixer	2
M38	141-2-472T-01000	Lug, Lead Fixer	2
M39	141-2-461T-16900	Pipe, Erase Head Stand	2

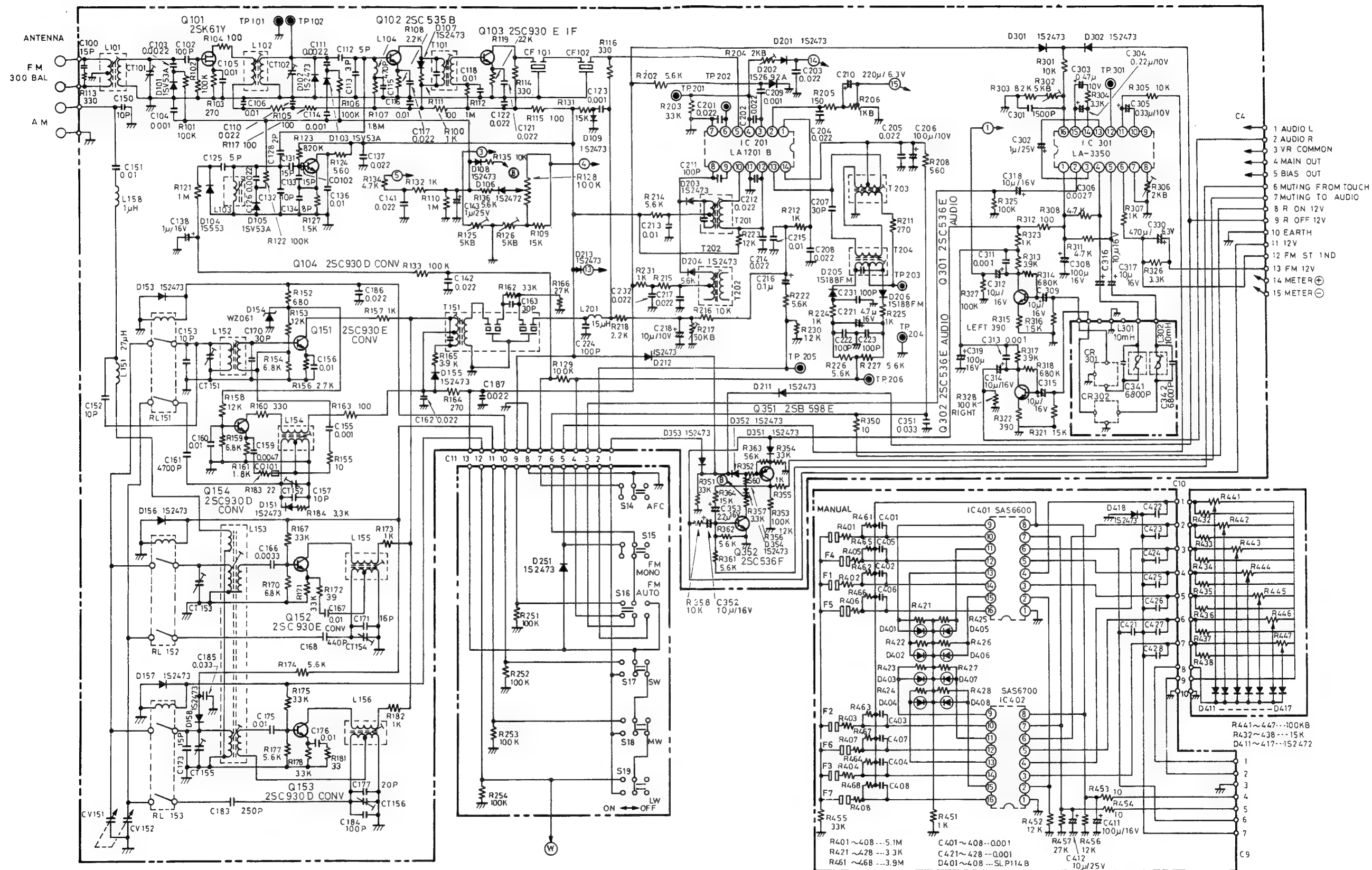
PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
MECHANISM				MECHANISM SCREWS			
M40	141-0-741T-18201	Lever Assembly, Play	1	Y1		Pan Head Screw 2x2mm	1
M41	141-0-741T-19000	Lever Assembly, Rewind & Fast Forward	1	Y2		Pan Head Screw 2x6mm	1
M42	141-0-741T-05700	Lever Assembly, Fast Forward	1	Y3		Pan Head Screw 2x8mm	1
		Roller Lever	1	Y4		Pan Head Screw 2x12mm	2
M43	141-2-661T-23600	Pulley, Roller	1	Y5		Pan Head Screw 2.6x4mm	1
M44	141-2-564T-13500	Square Belt, Rewind & Fast Forward	1	Y6		Pan Head Screw 2.6x6mm	1
			1	Y7		Pan Head Screw 3x4mm	1
M45	141-2-851T-63800	Coil Spring, Lever (M40, M42) Mtg.	1	Y8		Pan Head Screw 3x6mm	3
			1	Y9		Flat Head Screw 2.6x10mm	2
M46	141-0-741T-17000	Lever Assembly, Rewind & Fast Forward Operation	1	Y10		Tapping Screw 2.3x6mm	6
			1	Y11		Tapping Screw 2.3x8mm	2
M48	141-2-611T-09500	Push Button, Except Pause	5	Y12		Tapping Screw 3x6mm	3
M49	141-2-611T-09600	Push Button, Pause	1	Y13		Tapping Screw 3x8mm	2
M50	141-2-855T-06800	Coil Spring, Push Button	6	Y14		Flat Head Tapping Screw 3x6mm	1
M51	141-2-853T-23300	Plate Spring, Shaft (M52) Mtg.	2	Y15		Nut 2.6mm	2
M52	141-2-612T-03000	Shaft, Push Button Mtg.	1	Y16		Binding Head Tapping Screw 3x6mm	1
M53	141-0-731T-11500	Slide Assembly, Pause	1	Y17		Washer 2.3mm	1
M54	141-0-731T-11400	Slide Assembly, Stop	1	Y18		Washer 2.3x6x0.4mm	2
M55	141-2-731T-44400	Slide, Fast Forward	1	Y19		Washer 2.3x8x0.5mm	1
M56	141-0-731T-11600	Slide Assembly, Play	1	Y20		Washer 2.6x6x0.5mm	1
M57	141-0-731T-11800	Slide Assembly, Rewind	1	Y21		Washer 3x8x0.5mm	3
M58	141-0-731T-13600	Slide Assembly, Record	1	Y22		Washer 3x10x0.5mm	1
M59	141-2-851T-31500	Coil Spring, Play & Fast Forward Slide Restore	2	Y23		Spring Washer 2mm	3
			1	Y24		Internal Tooth Lock Washer 2.6mm	1
M60	141-2-851T-66400	Coil Spring, Rewind Slide Restore	1	Y25		External "E" Ring 1.5mm	2
M61	141-2-851T-67600	Coil Spring, Pause & Stop Slide Restore	2	Y26		External "E" Ring 2mm	3
M62	141-2-851T-56100	Coil Spring, Stop Slide (M54) & Lever (M76)	2	Y27		External "E" Ring 3.2mm	1
			1	Y28		Graphite Nylon Washer 2.1x4x0.25mm	2
M63	141-2-735T-09900	Rod, Coil Spring Earth	1	Y29		Graphite Nylon Washer 2.1x4x0.5mm	2
M64	123-2-472R-00400	Lug, Bracket Slide (M66) Mtg.	1	Y30		Graphite Nylon Washer 2.6x4.7x0.25mm	2
M65	141-2-851T-56000	Coil Spring, Record Slide Restore	1	Y31		Graphite Nylon Washer 2.6x4.7x0.5mm	1
M66	141-0-737T-00700	Bracket Slide Assembly, Push Button Slide Fixer	1	Y32		Graphite Nylon Washer 5.2x8x0.25mm	1
M67	141-2-683T-26000	Ring, Bracket Slide (M66) Mtg.	1	Y33		Graphite Nylon Washer 5.2x8x0.5mm	1
M68	141-0-731T-11900	Slide Assembly, Lock Slide	1	Y34		Steel Ball 2φ	4
M69	141-2-741T-47308	Auto Stop Lever	1	Y35		Fiber Washer 3x8x0.5mm	1
M70	141-2-851T-73201 or 141-2-851T-73202	Coil Spring, Auto Stop	1	Y36		Tapping Screw with Washer 3x6mm	2
M71	141-2-851T-99000	Coil Spring, Slide (M68) Restore	1	Y37		Tapping Screw with Washer 3x8mm	6
M72	141-2-851T-46000	Coil Spring, Bracket Slide (M66) Restore	1	Y38		Tapping Screw with Washer 3x10mm	1
M73	141-2-741T-82500	Lever, Safety Recording	1	Y39		Vinyl Tube 2φx18mm	1
M74	141-2-851T-79800	Coil Spring, Lever (M73) Restore	1	Y40		Vinyl Tube 2φx35mm	2
M75	141-0-741T-56491	Lever Assembly, Brake Lever	1	Y41		Vinyl Tube 3φx20mm	1
M76	141-2-741T-99100	Lever, Cassette Up	1	Y42		Vinyl Tube 5φx15mm	1
M77	141-2-614T-05100	Lever Lock, Pause	1	Y43		Vinyl Tube 6φx10mm	6
M78	141-2-852T-35100	Wire Spring, Pause	1	Y44		Vinyl Tube 4φx18mm	5
M79	141-0-741T-15301	Lever Assembly, Pause	1	Y45		Felt Cushion 5x5x7mm	1
M80	141-2-683T-25800	Ring, Lever (M79) Mtg.	1				
M81	141-2-855T-02900	Coil Spring, Lever (M79) Restore	1				
M82	141-0-741T-17100	Lever Assembly, Pause	1				
M83	141-2-741T-92200	Lever, Prevent a simultaneously Lock of Rewind & Play Button	1				

EXPLODED VIEW (MACHANISM)



SCHEMATIC DIAGRAM (TUNER , FM TOUCH, BAND SELECT FM PRESET)

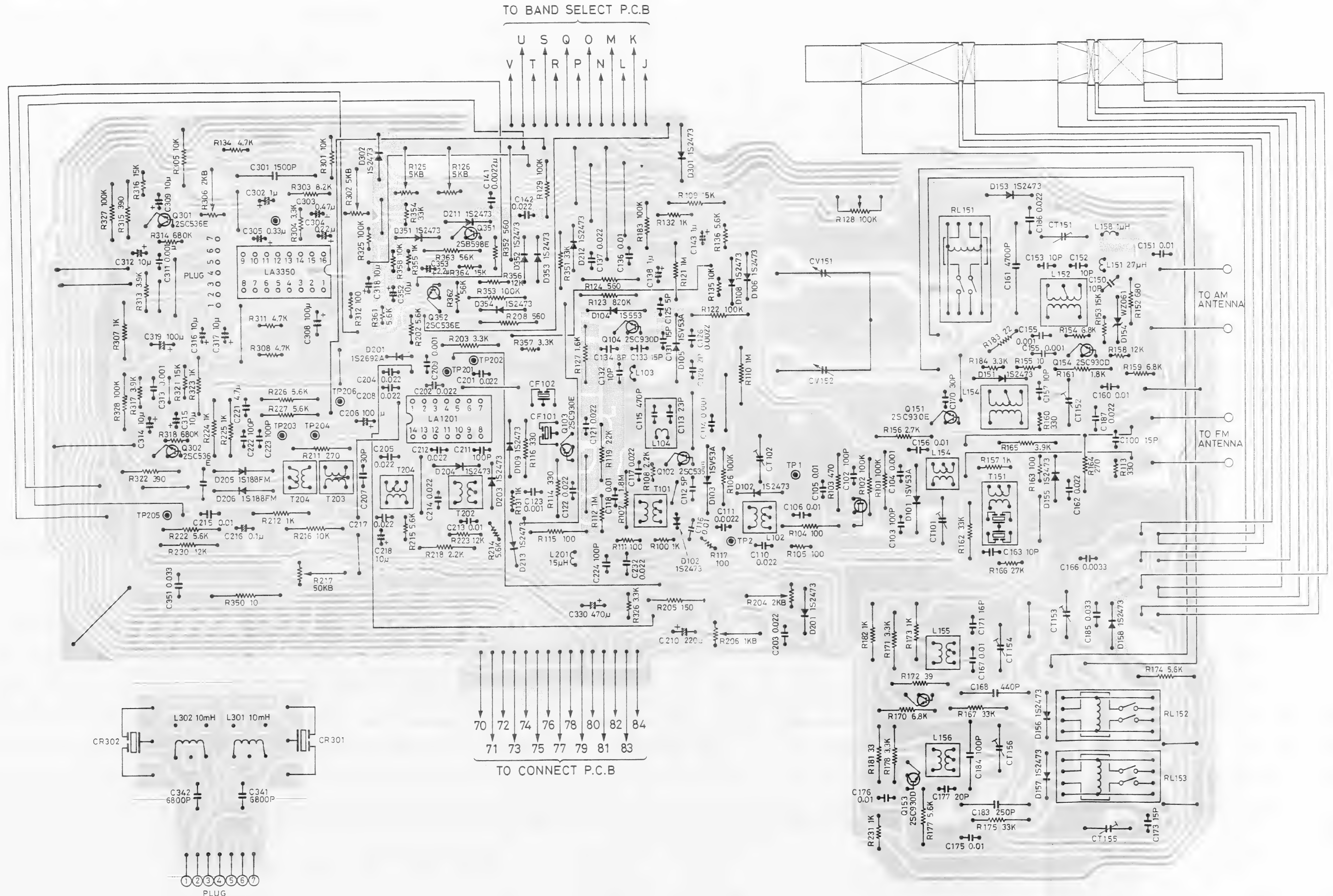


	Q101	Q103	Q104	Q301	Q302	Q351	Q352	Q151	Q152	Q153	Q154
B	1.91	2.76	1.97	1.06	1.06	11.08	0	2.26	1.96	1.65	2.24
C	11.27	11.12	10.92	6.0	6.0	0	10.77	10.56	11.06	11.18	10.93
E	1.28	2.13	1.78	3.42	3.42	11.14	0	1.64	1.31	1.10	1.57

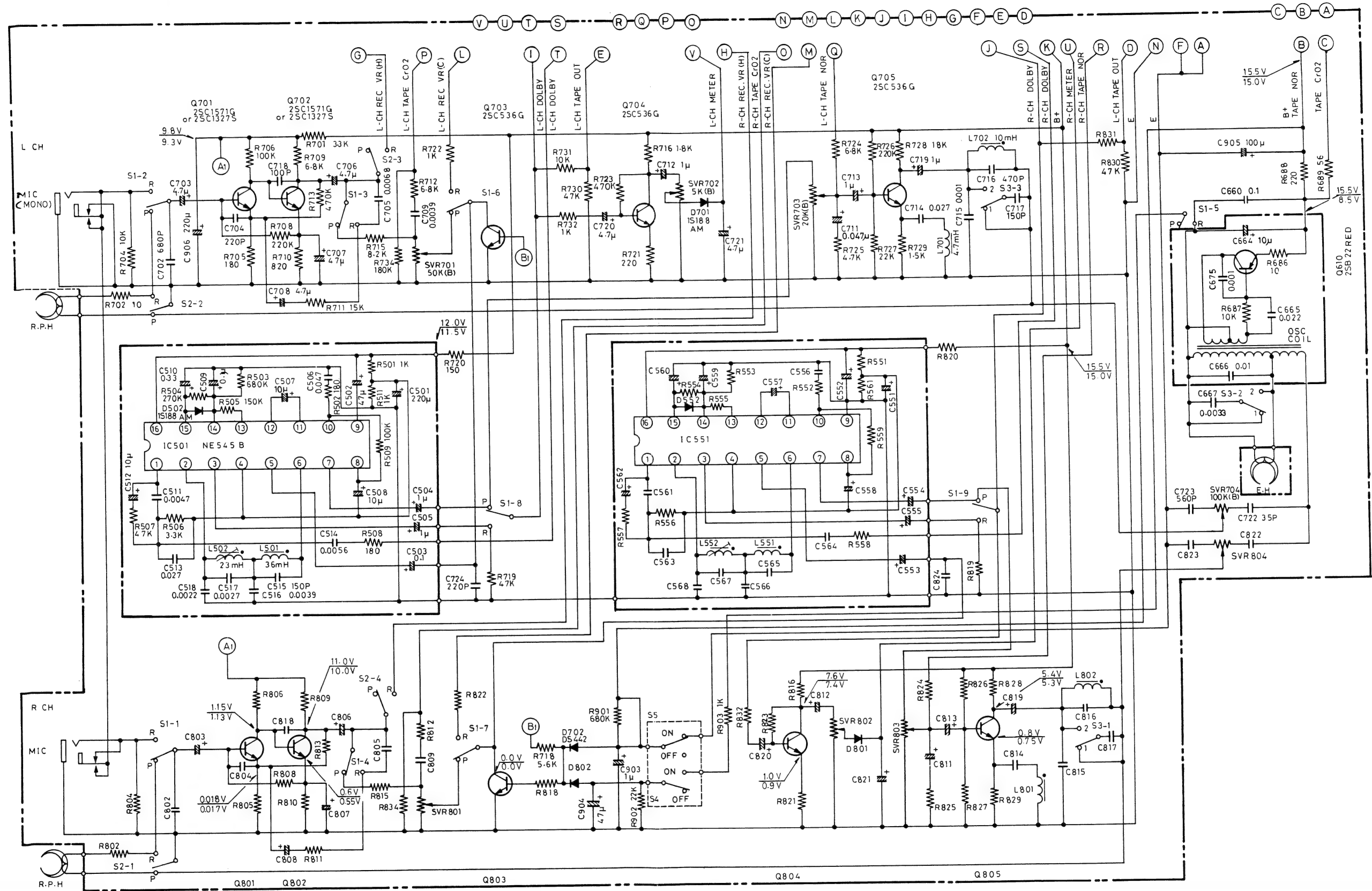
(V)	
	Q101
G	0
D	11.15
S	0.49

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC201	2.59	3.12	0.71	1.07	1.31	0.63	0	6.36	0.69	2.18	0	2.17	6.60	6.70	—	—
IC301	10.28	2.71	4.9	7.62	7.67	11.39	0	0.31	6.41	2.11	2.11	2.89	2.11	2.11	2.11	2.77

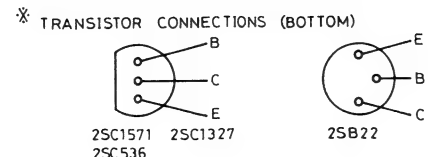
WIRING DIAGRAM (TUNER)



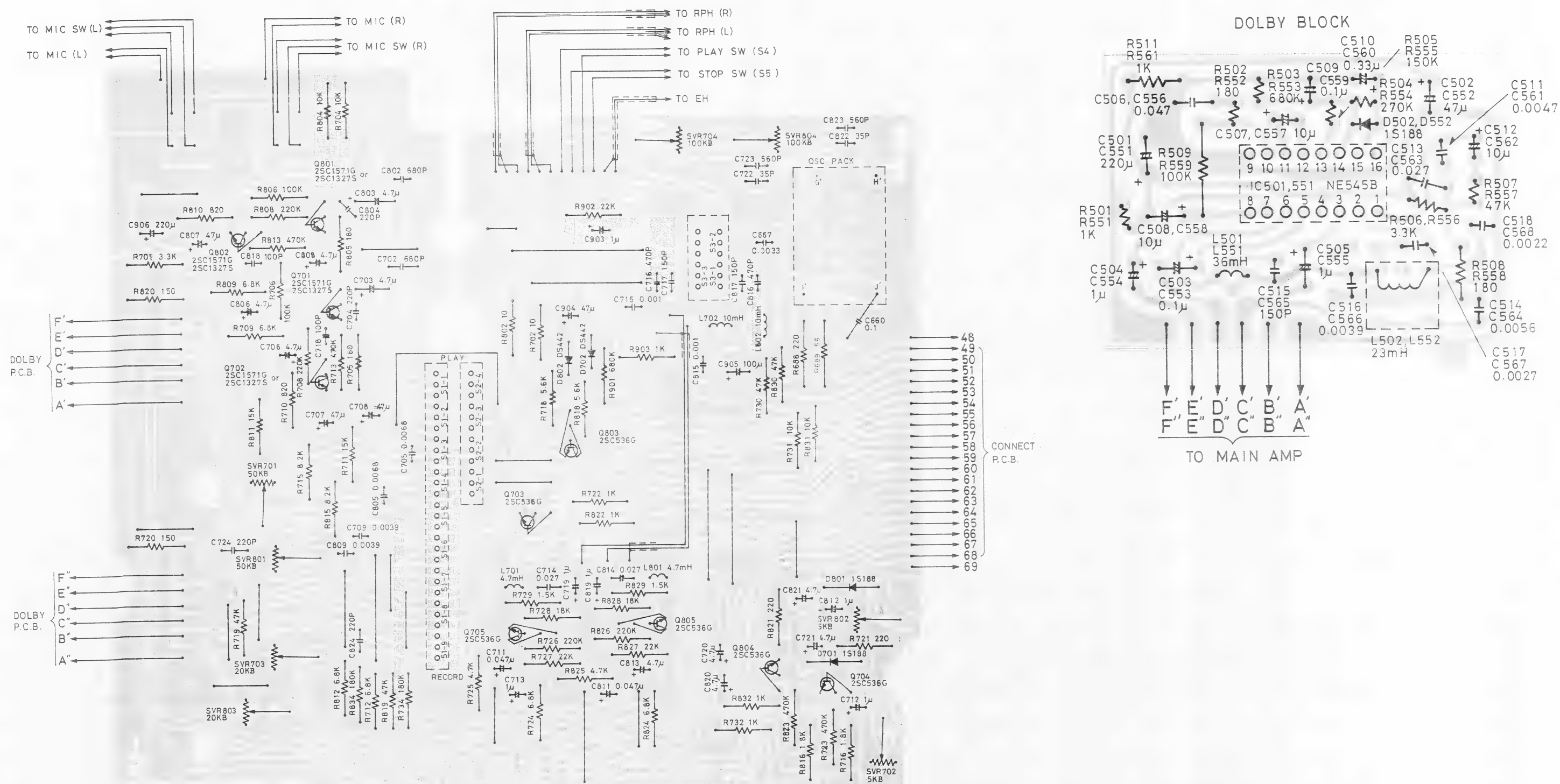
SCHEMATIC DIAGRAM (MAIN AMP, DOLBY)



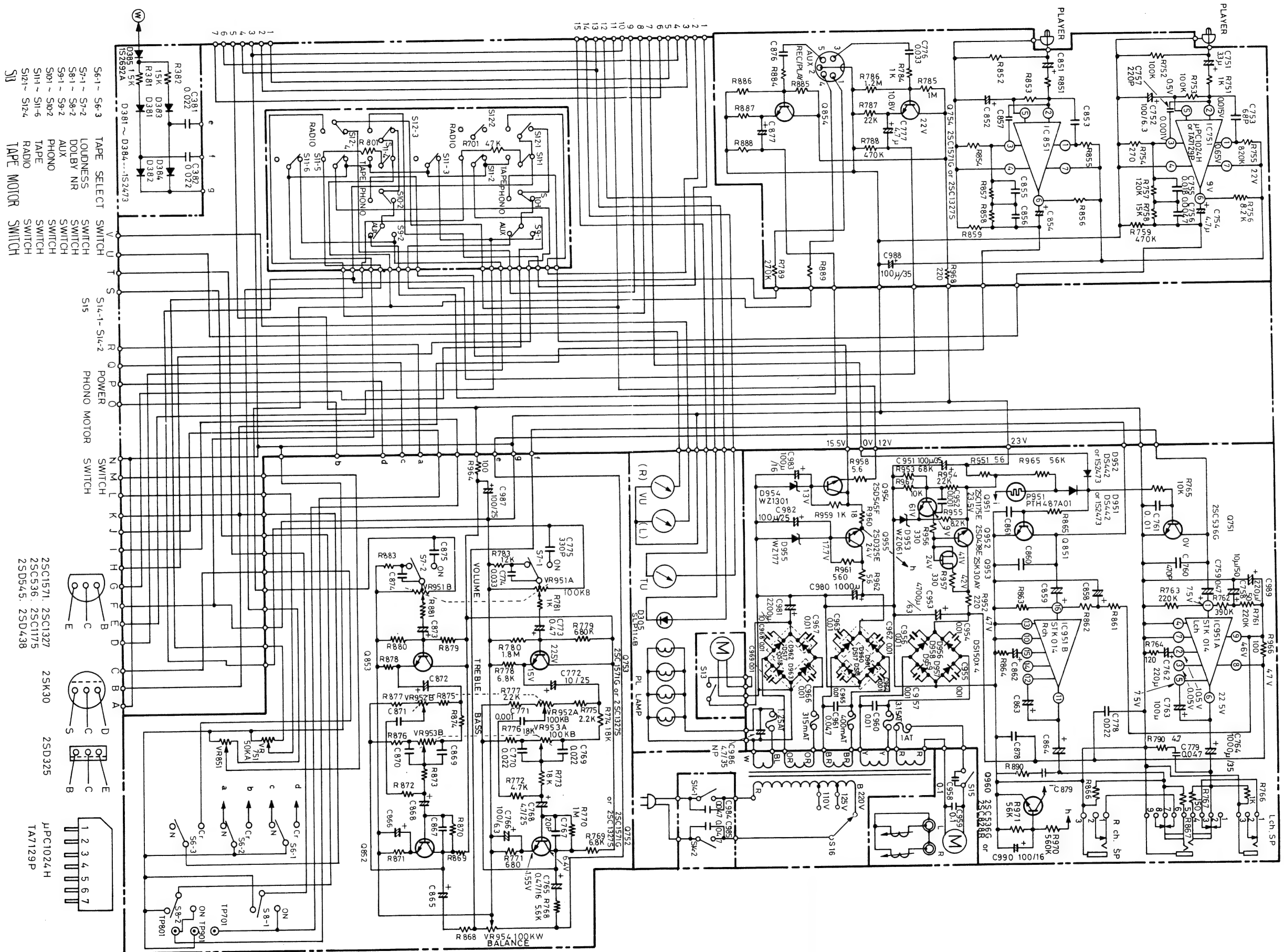
* S1-1 ~ S1-9 R/P SWITCH AT PLAY POSITION
S2-1 ~ S2-4
S3-1 ~ S3-3 BEAT SWITCH AT 1 POSITION
S4 MUT. SWITCH OFF AT PLAY
S5 MUT. SWITCH INSTANT OFF AT STOP



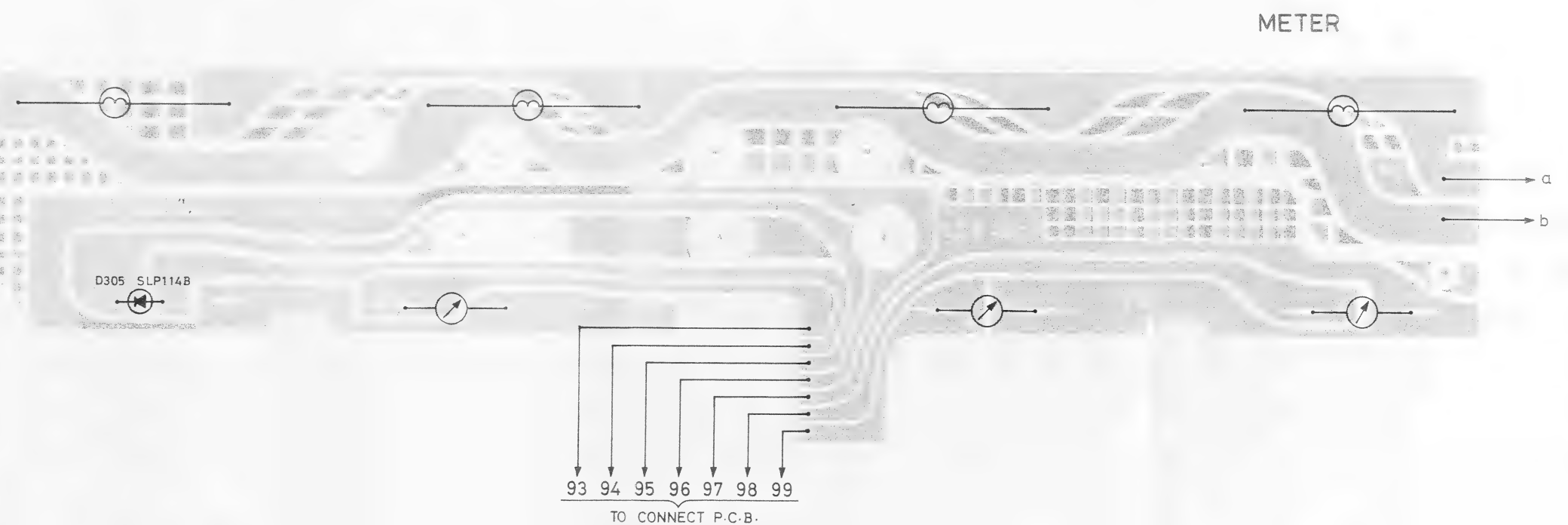
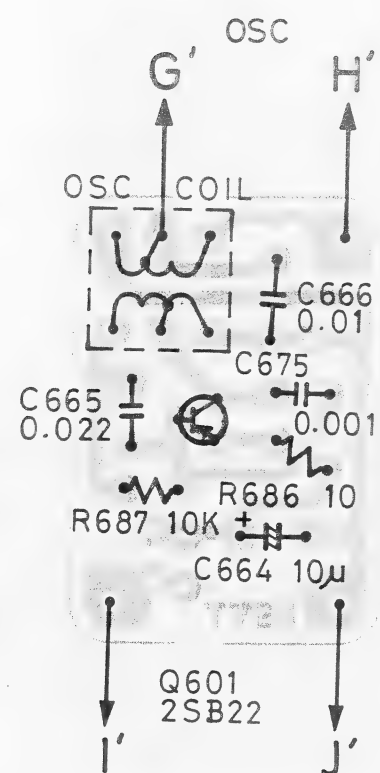
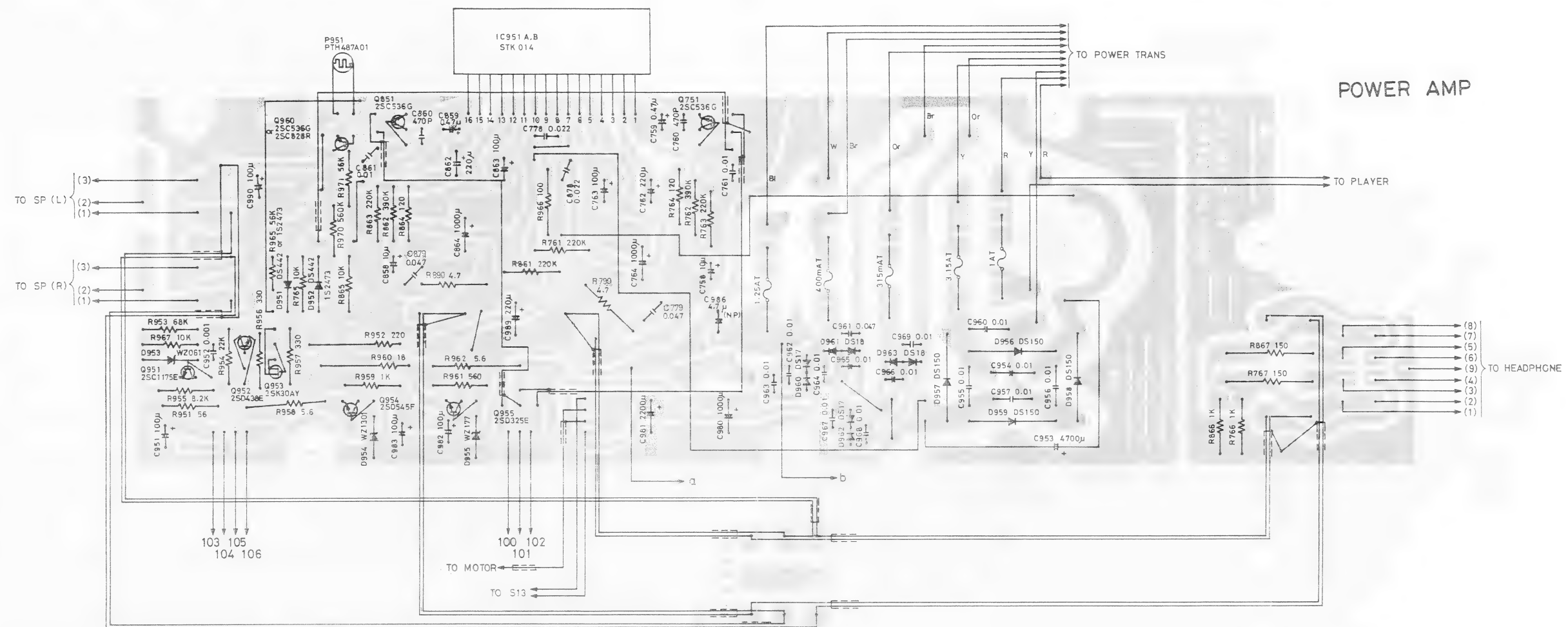
PLAY VOLTAGE TO CHASSIS
RECORD (NORMAL POSITION, TESTER 10V RANGE)



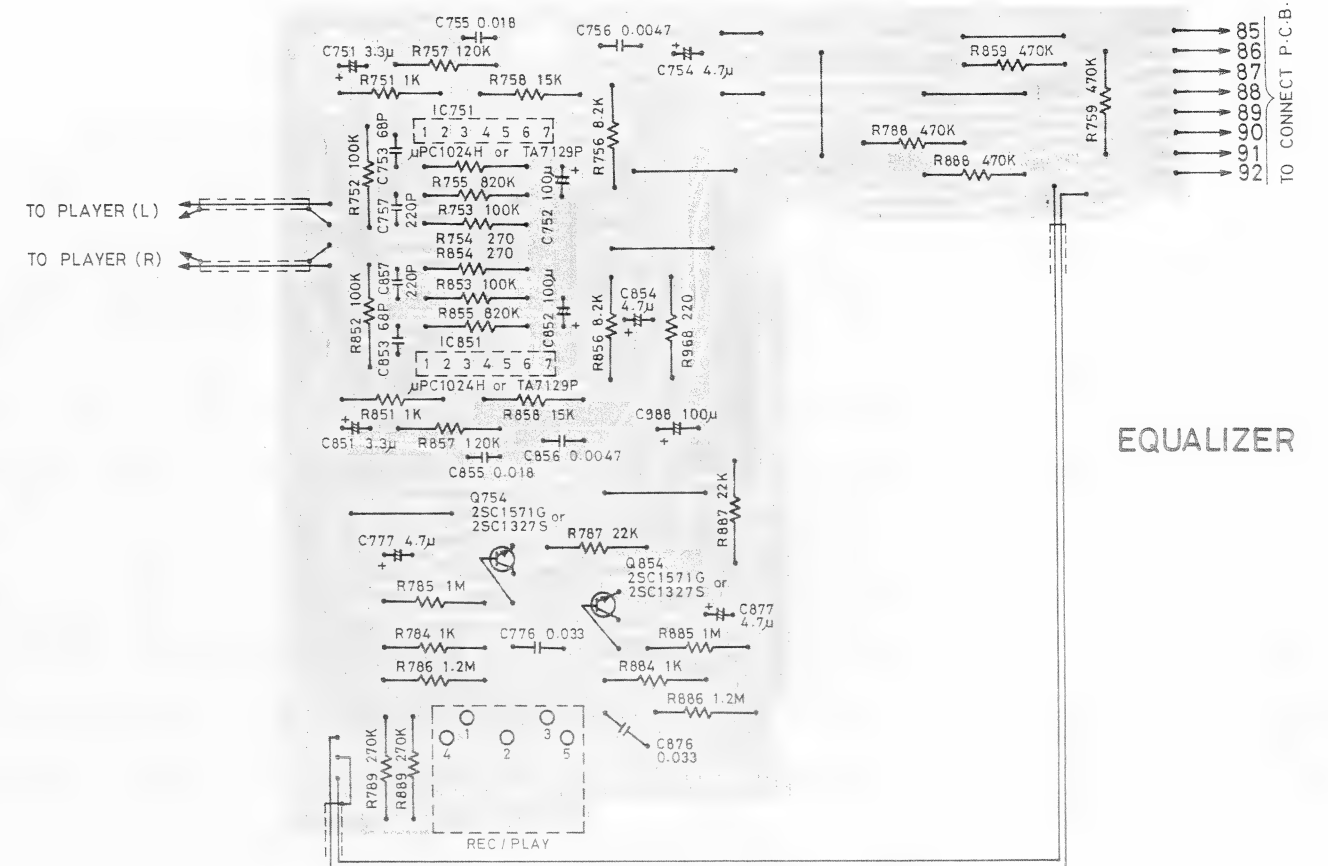
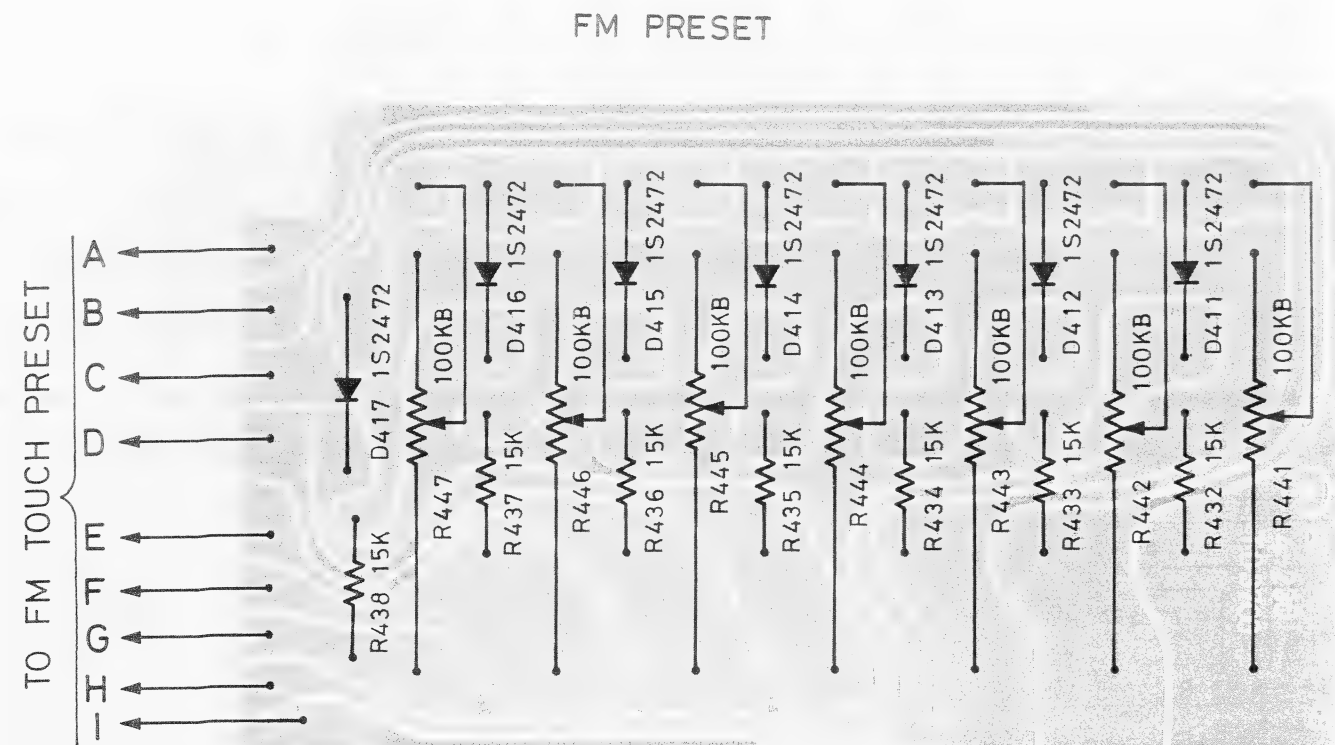
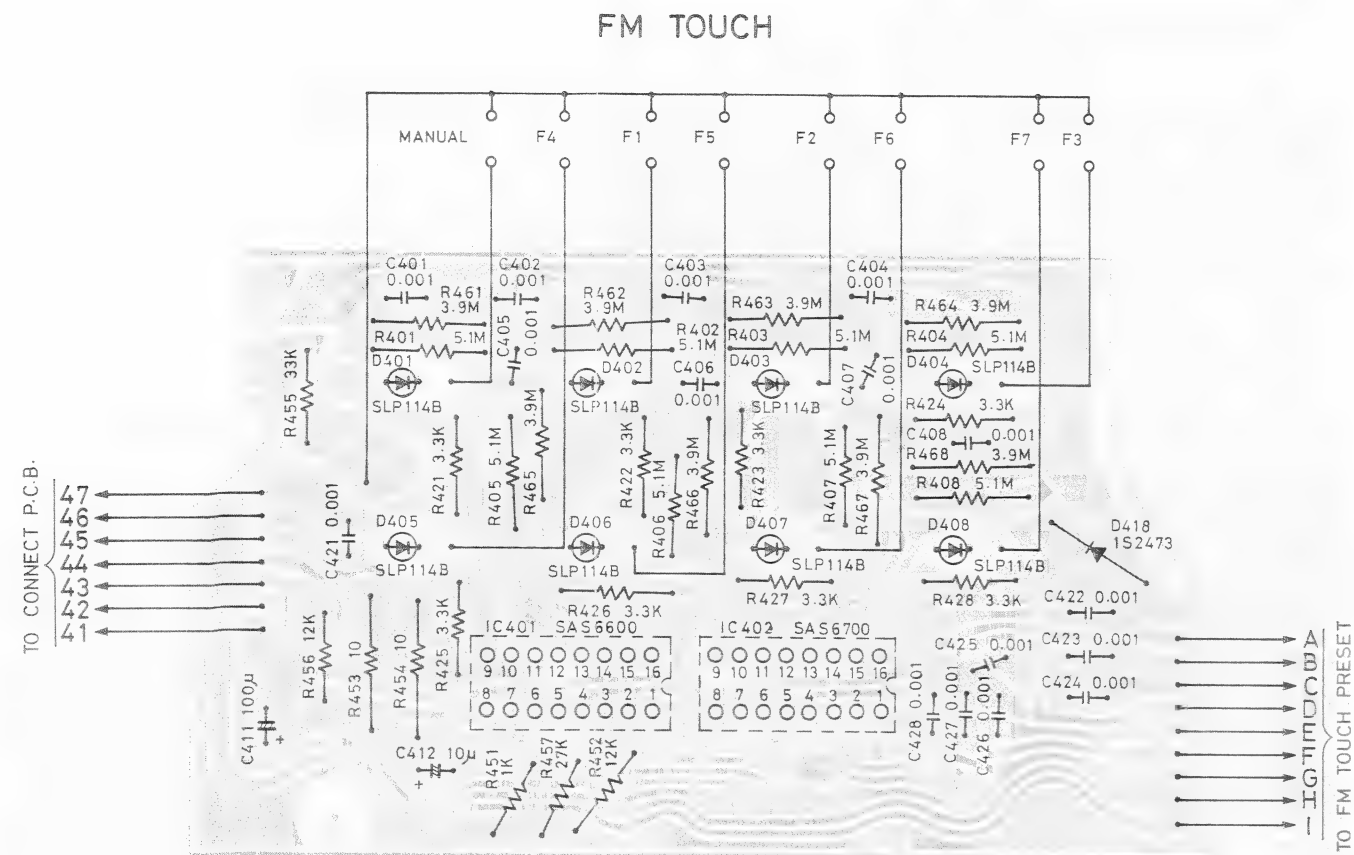
SCHEMATIC DIAGRAM (EQUALIZER, FUNCTION, SUB VR, POWER AMP, POWER SUPPLY, METER, VR)



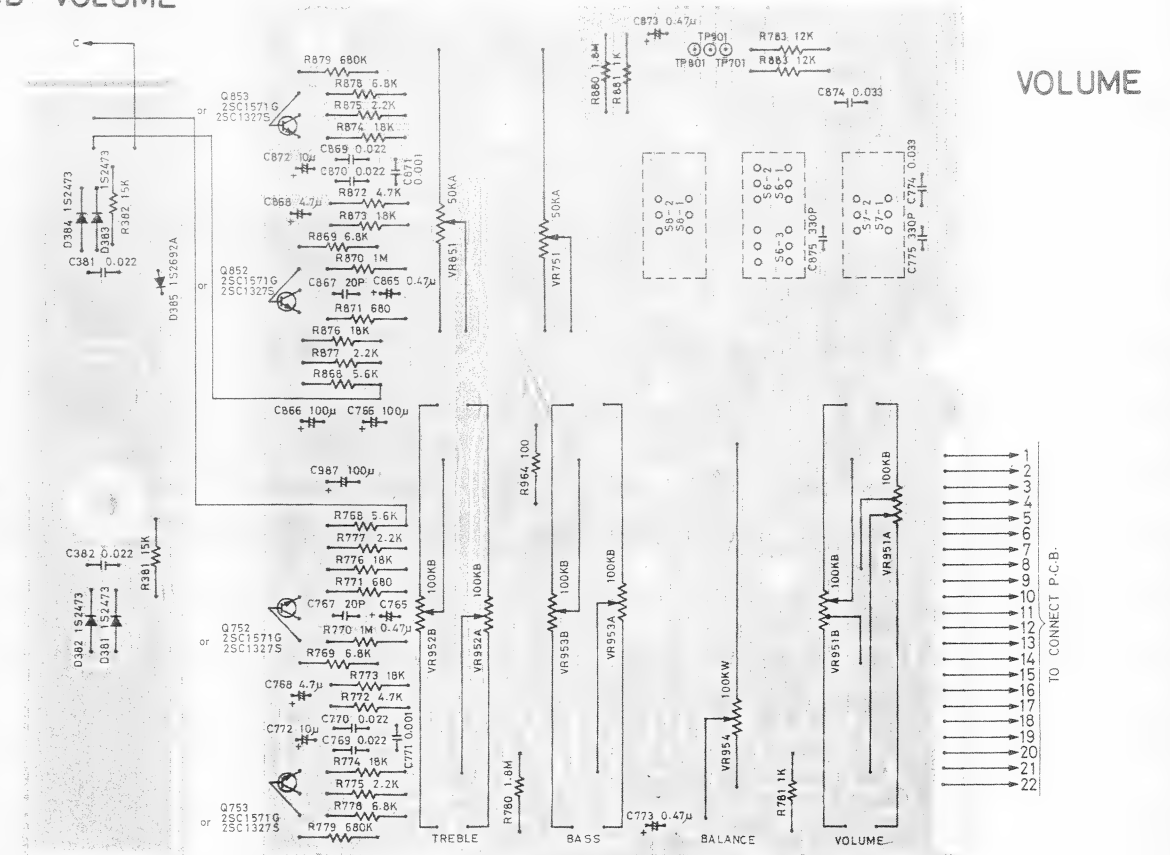
WIRING DIAGRAM



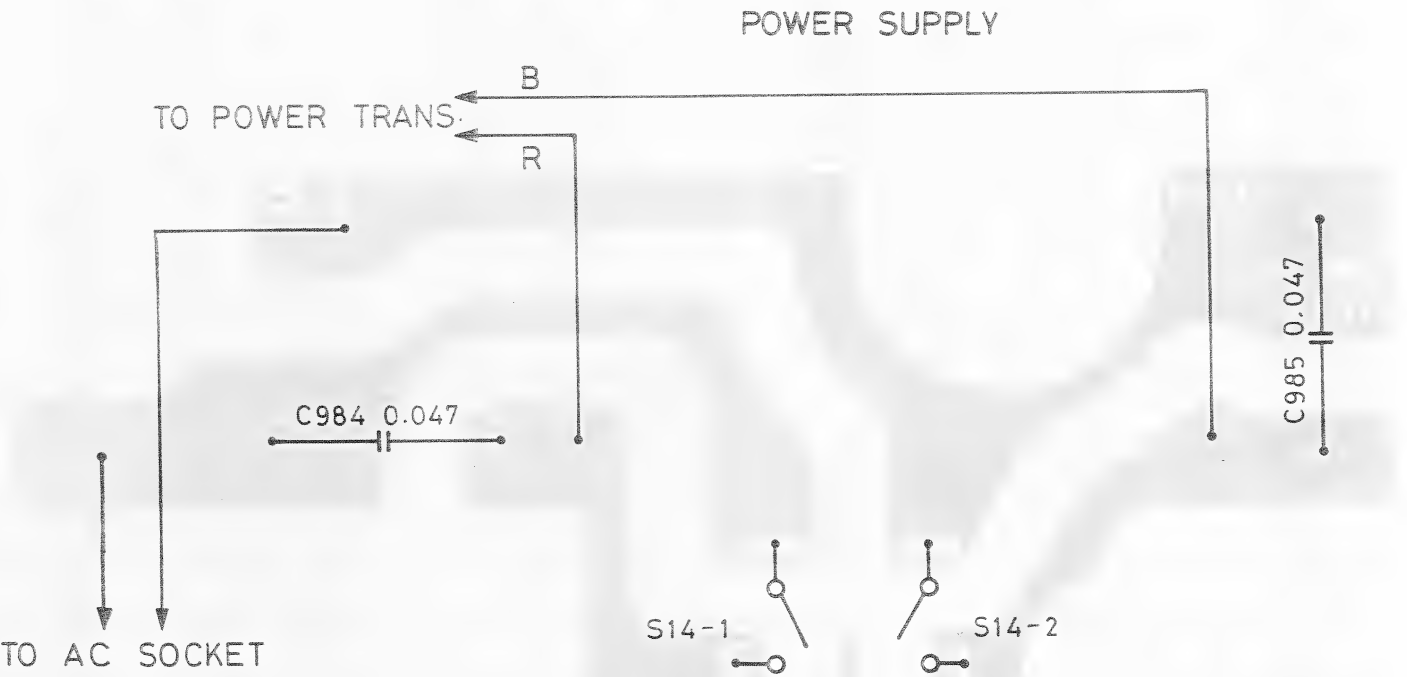
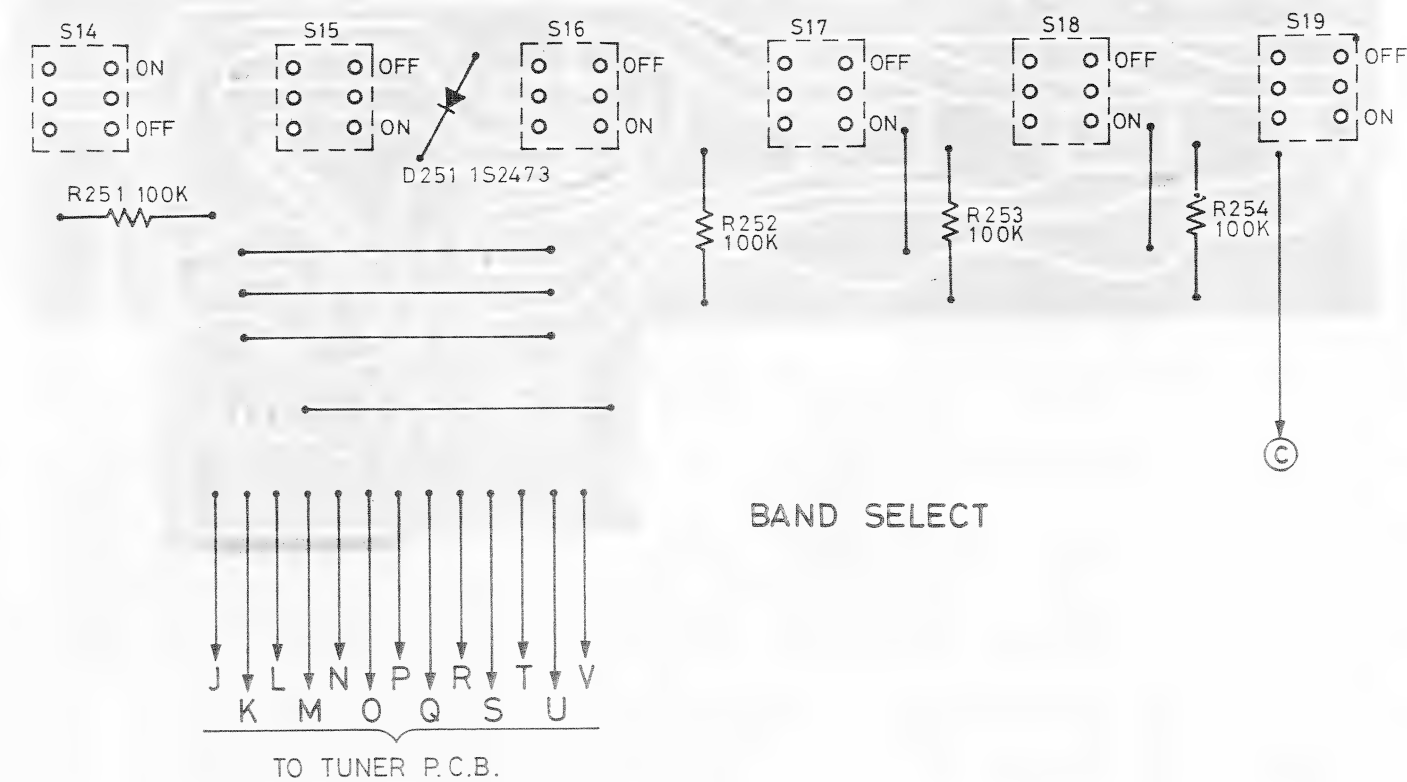
WIRING DIAGRAM



SUB VOLUME



WIRING DIAGRAM_____



WIRING DIAGRAM

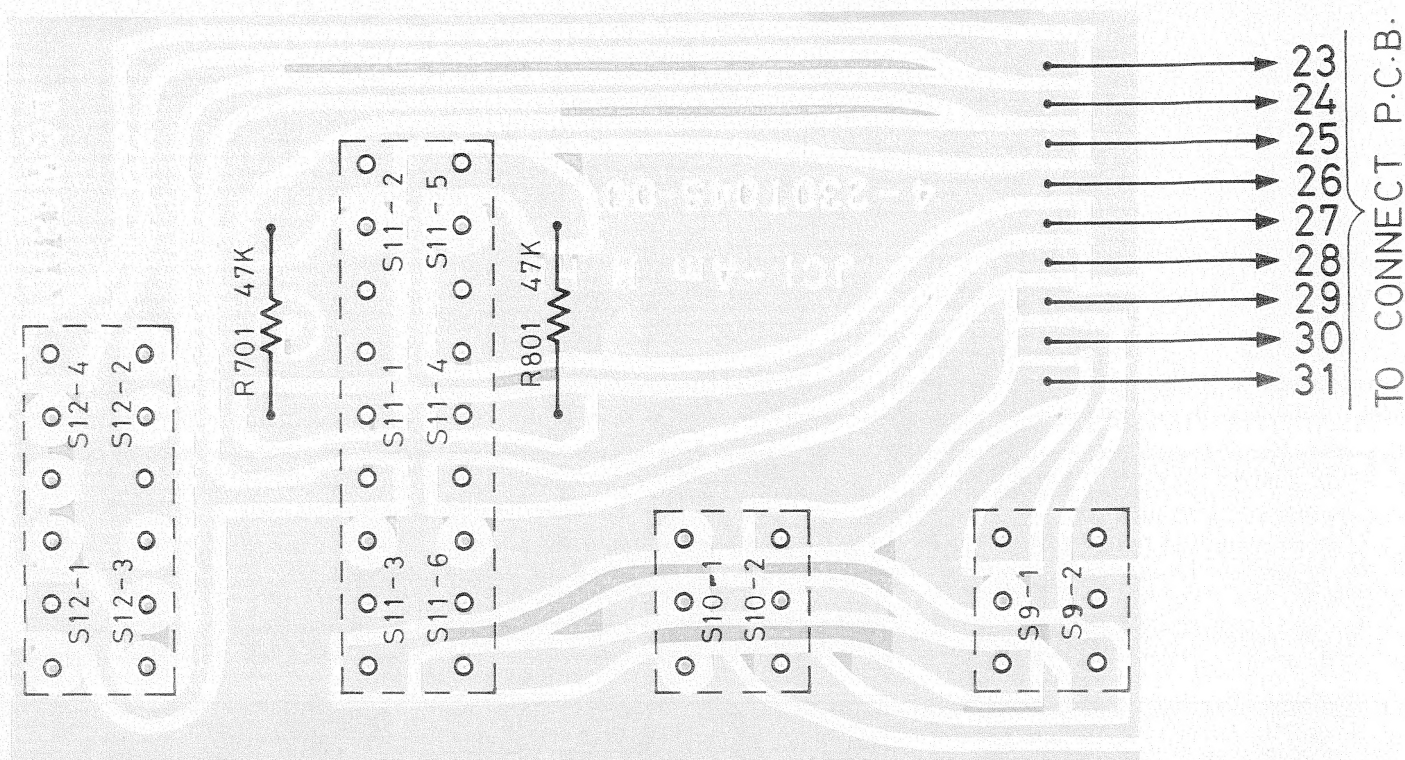
CONNECTOR



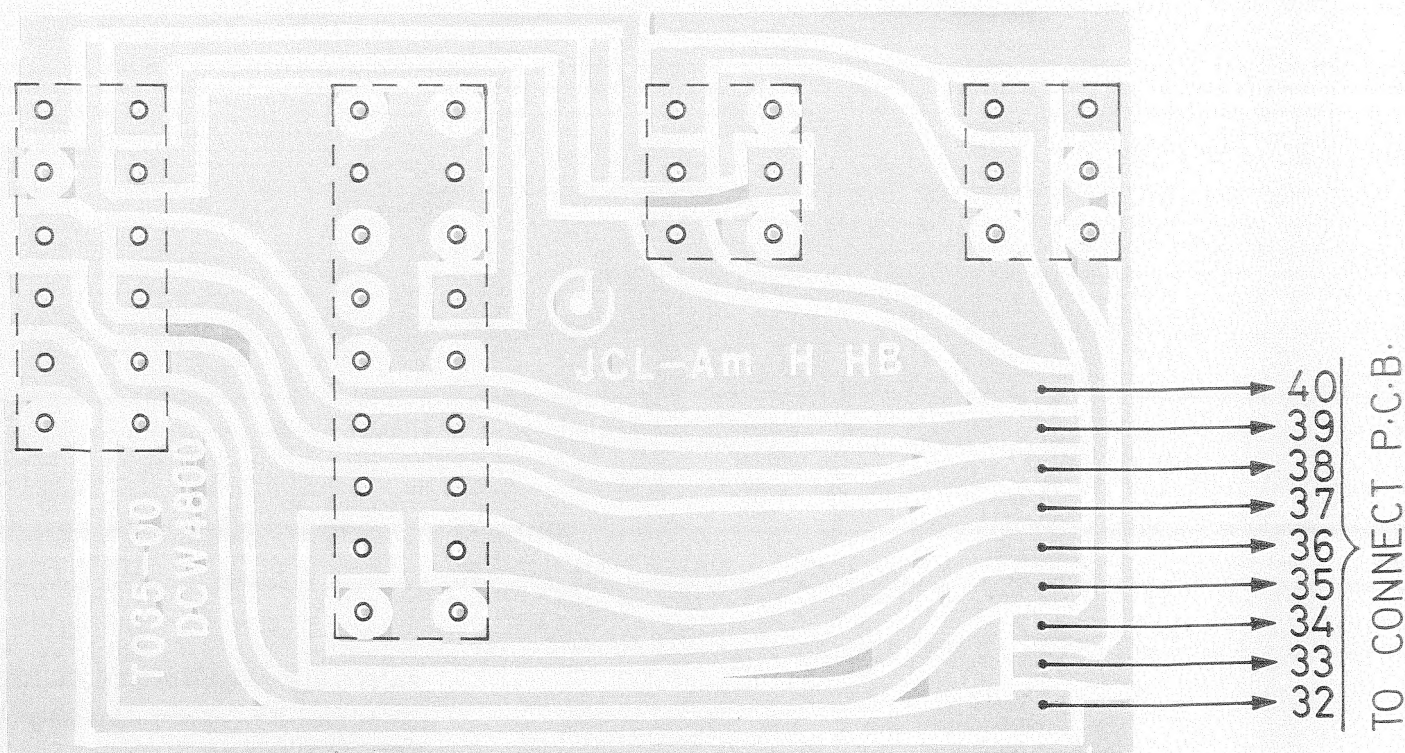
CONNECTOR



FUNCTION 1



FUNCTION 2



SERVICE MANUAL



SANYO

STEREO MUSIC SYSTEM

DCW4800UM

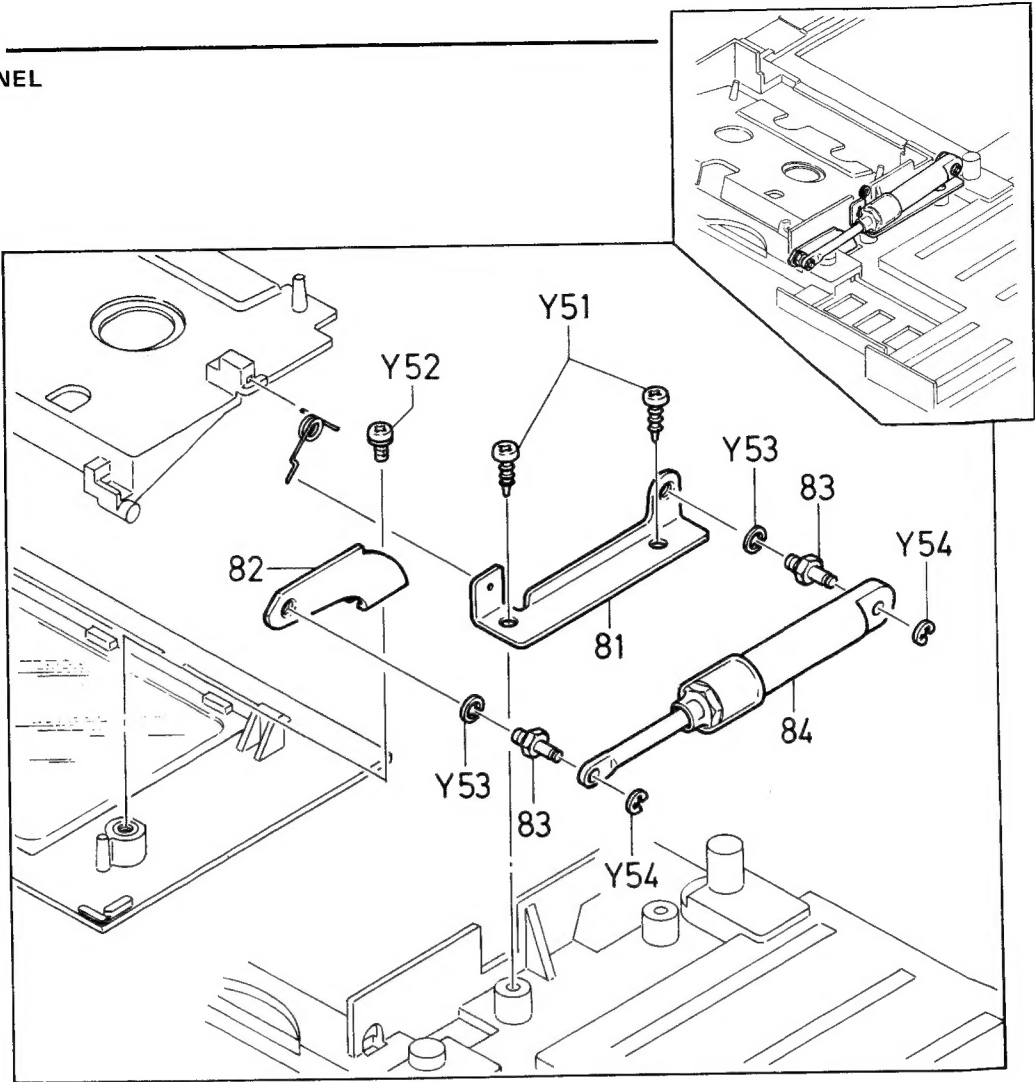
OIL DUMPER (EUROPE)



This supplement completes the DCW4800UM (OIL DUMPER) service manual for changing to OIL DUMPER Mechanism on cassette compartment.

For service of the other parts not listed here in, please refer to the former model DCW4800UM (WM-2276 is indicated at the bottom right of the cover) service manual.

EXPLODED VIEW
INSIDE OF DECK PANEL



PARTS LIST

Ref. No.	Part No.	Description	Q'ty
ADDITIONAL PARTS for OIL DUMPER CABINET			
81	141-2-310T-08600	Bracket, Deck Panel Mtg.	1
82	141-2-224T-08800	Bracket Lid, Top Lid Mtg.	1
83	141-2-567T-02300	Pulley Shaft, Sleeve	2
84	141-0-681T-00100	Sleeve Assembly, Oil Dumper	1
SCREW MOUNTING			
Y51		Tapping Screw 3 x 8 mm	2
Y52		Pan Head Screw with Spring Washer 3 x 5 mm	1
Y53		Spring Washer 3 mm	2
Y54		"E" Ring 2 mm	2
UNNECESSARY PARTS			
5	141-2-855T-09700	Coil Spring, Top Lid Opener	1
8	141-2-858T-05100	Bracket, Coil Spring (7) Mtg.	1
Y10		Tapping Screw 3 x 8 mm	1

SANYO ELECTRIC TRADING CO., LTD.
33, Hiyoshi-cho 2-chome, Moriguchi-shi,
Osaka-fu, 570 Japan

MODIFICATION NOTICE

STEREO MUSIC SYSTEM



DCW 4800UM (EUROPE)
OIL DUMPER

Date June 10, 1980 Issued by _____

The following corrections should be made in the SERVICE MANUALS and PARTS (PRICE) LIST.

		Section	Key No.	Part No.	Description	Q'ty	Remark	Reason
1	From	Cabinet	3	141- <u>9</u> -124T-1520 <u>1</u>	Top lid Assy	1		F
	To		3	141- <u>0</u> -124T-1520 <u>0</u>	"	1		
2	From							
	To							
3	From							
	To							

In Modification Notice (WM-3757) dated Jan. 00, 1979, the part number of top lid assembly is added as 141-9-124T-15201 to Model DCW4800UM with oil dumper. This is mis-register. This part number is corrected as 141-0-124T-15200.

INTERCHANGEABLE	NOT INTERCHANGEABLE	Serial No. Chassis No.	Effective from
Q'ty of initial production before modification.		Identification of modified unit.	
REASON FOR MODIFICATION			
A Standardization C Improvement of reliability E Miss print G B Change of materials D Improvement of performance F Miss register			